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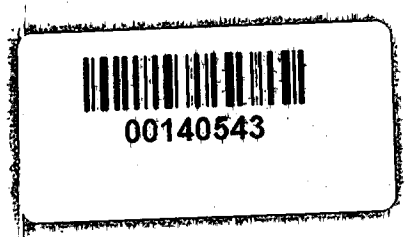
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REPORT.

To the Most Honourable the MARQUIS OF HARTINGTON.

My Lord Marquis,

India Office, 27th June 1881.

I have the honour to submit the following Report on the progress of Railways during the year 1880, and on the results of the working of the open lines during that year.

2. The total length of railway open for traffic on the 1st January last was 9,325 miles. At the commencement of last year, 8,487 miles were open, 838 were added during the year, and an additional 266 miles were opened before the close of the year 1880-81. This is the greatest length of railway that has been opened in any one year. The extent now completed consists of 6,906¾ miles with the standard gauge, 2,334¼ miles with the metre gauge, 27¼ with a 4 feet, and 56¾ with a 2 feet 6 inch gauge. Excluding the East Indian line, 1,504¼ miles in length, which are constructed and are worked by the Guaranteed Companies, 2,931¾ miles are under Guaranteed lines, and 296¾ miles are under Native States.

3. The principal additions during the year have been lines in connection with the Additions during the year.
Indus Valley Railway towards Kandahar from Ruk, on the Indus Valley line of the railway towards Kandahar from Ruk, on the Indus Valley (145 miles), with a branch to Pir Chowki (19 miles), at the foot of the Bolan Pass, and of the extension of the Punjab Northern Railway between Jhelum and Khushalgarh (120 miles), with a branch (54 miles) to the salt mines at Miani, on the Salt Range. With regard to the Kandahar line, its continuation is at present suspended, Line towards Quetta and Kandahar.
but the earthworks which were in progress for forty miles beyond Sibi have been relinquished. The distance from Sibi to Quetta by the route chosen for the railway through the valley of the Nari river and Pishin is 140 miles; by the Bolan Pass the distance from the terminus of the branch at Pir Chowki to Quetta may be taken at about 86 miles, but this route must be regarded as practically unsuited for a railway. As regards the Punjab Northern line its extension to Peshawur is in progress, including the bridge over the Indus at Attock, and it is expected that the works will be sufficiently advanced to enable communication to be opened very shortly, the passage of the river being at present effected by a bridge of boats during the low water season, and by a ferry in the floods. The branch from Rawulpindi to Khushalgarh, 80 miles on the way to the frontier fortress of Kohat and the Kurrum Valley, has also been finished since the beginning of the year.

4. Turning to the interior, an important addition has been made to the Rajputana R
line by the opening of the section between Ajmere and Pahlunpur. This line now forms, in connection with the Bombay, Baroda and Central India Railway, a direct communication from Agra and Delhi to Bombay. I may here mention that the new bridge* which carries the Bombay and Baroda Railway over the Nerbudda was opened for traffic on the 16th May last, and that an extension of the branch of this railway, 17 miles farther eastward, to Godra is now in course of construction. An important link on the Malwa line has also been completed extension from Ratlam to Neemuch, 62½ miles.

5. In the North-West Provinces, 49¼ miles of a provincial line between to Furrukabad, and in the Central Provinces, 58 miles of the Nagpur line, extending from Nagpur to Tumsar, were opened during the year. Other sections are nearly completed.

* This bridge consists of 25 spans of 180 feet. The work was commenced was finished and pronounced ready for traffic the 16th May 1881. The depth bed varies from 55 to 104 feet. The height to the under side of truss from lo

Wt. P. 365.

…s, constructed at the j… …aunagar and Gondal, M… …ar, has been opened as a fair … necting the interior with the port of Bhaunagar. A further exten… munication in this province is in progress, as well as elsewhere in …

Mysore.

The railways undertaken in this State are on a 2 ft. 6 in. gauge, a… structed and worked with praiseworthy economy. The first State li… Mysore's dominions has been opened during the past year. It will e… Bangalore to Mysore, but at present is only open for 35 miles of …

Bhopal.

the Bhopal State rapid progress has been made with the line wh… capital into communication with the Great Indian Peninsula Railway …

Works in progress.

7. Among the works in progress, or about to be commenced, bes… of the Punjab Northern Railway to Peshawur already noticed, m… the bridge over the Ganges at Benares, with a connecting link to joi… Railway, which is being executed by the Oudh and Rohilkund Rai… a part of their system; the junction of the East Indian with the… Railway by a bridge across the Hooghly; and the continuation of… from Neemuch, where it was opened in July last, to Nusseeraba… 135 miles. Lines also in Tirhut, in extension of the existing Pr… from Muzaffarpur to Bettiah, 78 miles in one direction, and from Da… Ghât, 24 miles, have been commenced as "productive" works, as … line in British Burmah from Rangoon to Tounghoo. Certain railway… sanctioned as "protective" works in the Southern Mahratta Cou… districts west of Delhi.

Attock Bridge.

8. A description of the bridge over the Indus at Attock was g… Report. The piers and girders, which are of iron, have been man… country, and will be put up in the course of the year.

Benares Bridge.

9. A commencement has been made with the Benares bridge, the d… prepared by Mr. Batho, in communication with Mr. Hederstedt, the … and approved by Mr. Barlow, late President of the Institution of Civil … been settled. The length of the bridge is 3,482 feet, and will consis… of 356 feet, and nine spans of 110 feet. It was at first proposed to … spans a length of 416 feet, but Mr. Batho pointed out that a consid… labour and of money would be effected by reducing it to 356 feet. B… viaduct for an embankment on the south bank the alteration has been … as Mr. Batho states, better dimensions, both with regard to econon… speed of erection, as well as safety, have been adopted. It will also p… of 50,000*l.* in the original estimate of 490,379*l.*

Indus Crossing at Sukkur.

10. No further steps have yet been taken for carrying the Indus … over the Indus at Sukkur by means of a bridge. But arrangements h… by which goods trucks are conveyed across by ferry boats without … and every convenience is provided for passengers who have to be t… one train to another.

11. Arrangements with reference to a railway from the Portu… Marmagâo have been referred to in previous Reports. They have now … and a Company, entitled the "West of India Portuguese Guaranteed … pany," has been formed in this country for the purpose of constructing … ailway, about 50 miles in length, from Marmagâo to the British-Ind… of the work is estimated at 800,000*l.*, upon which the Po… granted a guarantee of 5 per cent, and have agreed, t… to be necessary, they will recommend the Portuguese Pa… such excess. The Government of India have underta… extending the line to Hubli and Bellary, upon being sa… s harbour will be established at Marmagâo, and that t… being completed. It is also contemplated that the li… ther lines of railway which are to be constructed … y, and thus form part of the general system of …

… years since it was determined by the Gover… nment to supplement … nes, which were laid out by Lord Dall… housie and which were … k Companies on the guarantee princi… ple, by a system of State …

Railway.	Gauge.	Length of Line sanctioned.	Length opened during 1880.	Total Length opened on 1st Jan. 1881.	Portion laid with Double Line.	Length remaining to be finished.
STATE LINE WORKED BY COMPANY.		Miles.	Miles.	Miles.	Miles.	Miles.
East Indian (*a*)	5′ 6″	1,510½	—	1,504½	410¼	6¼
GUARANTEED COMPANIES.						
Bombay, Baroda and Central India	5′ 6″	421½	—	421½	23	—
Eastern Bengal	5′ 6″	158¾	—	158¾	—	—
Great Indian Peninsula	5′ 6″	1,288	—	1,288	324½	—
Madras	5′ 6″	(*b*)860½	—	(*b*)860½	42½	—
Oudh and Rohilkund	5′ 6″	596½	—	546¾	—	49¾
Sind, Punjab and Delhi — Punjab and Delhi	5′ 6″	553¾	—	553¾	—	—
Sind	5′ 6″	109¾	—	109¾	4½	—
South Indian	3′ 3⅜″	653¼	21¾	653¼	—	—
Totals for East Indian and Guaranteed Railways		6,152½	21¾	6,096½	804¾	56
SUBSIDIZED COMPANY.						
Bengal Central	5′ 6″	(*p*) —	—	—	—	—
STATE.						
Bengal Provincial :—						
Calcutta and South-Eastern	5′ 6″	43	—	28	—	15
Nalhati	4′ 0″	27¼	—	27¼	—	—
Northern Bengal	3′ 3⅜″	230¾	—	243¾	—	—
	5′ 6″ (*c*)	13				
Tirhut	3′ 3⅜″	184¼	—	85	—	102
	5′ 6″	(*d*)2¾				
Patna-Gya	5′ 6″	57	—	57	—	—
Dacca and Mymensingh	—	(*t*) —	—	—	—	—
North-Western Provinces, Provincial :—						
Muttra-Hathras	3′ 3⅜″	53	—	29	—	24
Cawnpore-Farrukhabad	3′ 3⅜″	86	49¼	49¼	—	36¾
Dildarnagar-Ghazipur	5′ 6″	12	12	12	—	—
Bombay :—						
Rajputana	3′ 3⅜″	716½	168(*l*)	717¾	1½	—
	5′ 6″	(*m*)1½				
Holkar and Sindia-Neemuch	3′ 3⅜″	389¾	82¾	254½	—	135¼
Patri (*o*)	5′ 6″	22½	—	22½	—	—
Dhond-Manmád (*k*)	5′ 6″	145¾	—	145¾	—	—
Bombay-Eastern Deccan	—	(*q*) —	—	—	—	—
Marmagâo-Hubli	—	(*r*) —	—	—	—	—
Central Provinces :—						
Wardha Coal (*e*)	5′ 6″	46½	—	46½	—	—
Nagpur and Chattisgarh	3′ 3⅜″	128¾	53	53	—	75¾
British Burmah, Provincial :—						
Rangoon and Irrawaddy Valley (*h*)	3′ 3⅜″	161	—	161	—	—
Rangoon and Sittang Valley	3′ 3⅜″	(*i*) —	—	—	—	—
Central System :—						
Sindia	5′ 6″	74¾	—	66½	—	8¼
Punjab :—						
Punjab Northern (*f*)	5′ 6″	348	176¾	280	—	122
	3′ 3⅜″	54				
Indus Valley	5′ 6″	502¼	—	501	—	1¼
Kandahar	5′ 6″	193	152	152	—	41
Totals for State Railways		3,493	693¾	2,931¾	1½	561¼
NATIVE STATES.						
Bhopal	5′ 6″	62	—	—	—	62
Bhaonagar-Gondal	3′ 3⅜″	194	105 (*n*)	105	—	89
Dabhoi (Gaekwar of Baroda's)	2′ 6″	58¾	17½	56¾	—	2
Khamgaon (*g*)	5′ 6″	8	—	8	—	—
Amraoti (*g*)	5′ 6″	6	—	6	—	—
Nizam's	5′ 6″	121	—	121	—	—
Mysore	3′ 3⅜″	85¾	—	—	—	85¾
Totals for Native State Railways		535½	122½	296¾	—	238¾
Totals for all Railways		10,181	838	9,325	806¼	856

(*a*) In addition to the Jabalpur Branch, this includes the loop and the chord lines of the main line, with their branches, 74¼ miles in length. By the loop line the distance from Howrah to Delhi is 1,018½ miles. By the chord line, the length of which is 186¼ miles, the distance is 954½ miles.

(*b*) This has been found after re-measurement to be the correct mileage.

(*c*) The Poradaha Section (13 miles) is on the 5′ 6″ gauge, and separated from the rest of the line by the river Ganges.

(*d*) The Barh Branch (2¾ miles) is on the 5′ 6″ gauge, and separated from the rest of the line by the river Ganges.

(*e*) Re-named on amalgamation with the Warora Colliery. Since 1st April 1879 the accounts of the Railway and Colliery have been united.

(*f*) This line was opened in October 1878 as a *broad gauge* line. It was originally (1875-76) constructed and opened on the *metre gauge*. The Branch, 54 miles in length, from Lala Musa (82 miles from Lahore) to Miani, on the Jhelum, opposite Pind Dadan Khan, is on the metre (3′ 3⅜″) gauge.

(*g*) These branches were constructed from the surplus revenues of Berar.

(*h*) An extension from Prome to Allanmyo has been sanctioned.

(*i*) Under survey. Proposed length, 161½ miles.

(*k*) This chord line connects the Northern and Southern branches of the Great Indian Peninsula Railway without the necessity of ascending and descending the Western Ghâts.

(*l*) The Section from Sujat Road to Palanpur (144 miles) was opened on 1st January 1881.

(*m*) The Branch (1½ miles), from Agra Fort Station to the East Indian Railway, is on the broad gauge.

(*n*) Opened on 20th December 1880.

(*o*) Branch of, and worked by the Bombay, Baroda and Central India [illegible]

(*p*) Under survey. Proposed length, 245 miles.

(*q*) Under survey. Proposed length, 163 miles.

(*r*) Under survey. Proposed length, 128 miles.

(*s*) Under survey. Proposed length, 124 miles.

The following STATEMENT shews the Annual Progress made in the Construction of Railways in India since their commencement.

[illegible]ailways.	Length of Line open at the end of each Year.																									
	1853.	1854.	1855.	1856.	1857.	1858.	1859.	1860.	1861.	1862	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.
[illegible]RANTEED.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Bombay, Baroda and Central India	—	—	—	—	—	—	—	35	134	167½	185	305½	305½	305½	305½	306½	307½	312½	349½	389½	389½	406	407½	416½	421½	421½	421½	421½
Eastern Bengal	—	—	—	—	—	—	—	—	—	109½**	109½	109½	109½	109½	109½	112	112	112	157	157	157	159	158½††	159	159	159	158½†††	158½
East Indian (including Jabalpur line)	—	37½	120½	120½	120½	139½	286½	370½	563½	877½	933	1,104	1,127½	1,127½	1,353	1,353	1,353	1,353	1,503½	1,503½	1,503½	1,503½	1,503½	1,503½	1,503½	1,503½	1,504½	1,504½
Great Indian Peninsula	20½	33½	49½	87½	87½	183½	244½	297	457½	495	552½	585½	701½	815½	852½	873½	873½	1,258½	1,278½	1,278½	1,278½	1,278½	1,278½	1,278½	1,280½¶	1,280½	1,287½§§	1,288
Madras	—	—	—	65	80½	95½	95½	137	206½	447½	447½	570	609½	643½	643½	675½	705½	781½	830½	830½	858	858	858	858	858	857††	857	860½‖‖
Oudh and Rohilkund	—	—	—	—	—	—	—	—	—	—	—	—	—	—	42	42	42	42	42	293½	456½	540½	543½	543½	543½	546½	546½	546½
Sind, Punjab and Delhi — Delhi	—	—	—	—	—	—	—	—	—	—	—	—	—	—	58½	58½	271½	303½	553½	553½	553½	553½	553½	553½	553½	553½	553½	553½
Sind, Punjab and Delhi — Punjab	—	—	—	—	—	—	—	—	—	82	45‖	45	253	253	246	246	246	256										
Sind, Punjab and Delhi — Sind	—	—	—	—	—	—	—	—	109½	109½	109½	109½	109½	118	113	118	113	113	113	109½	109½	109½	109½	109½	109½	109½	109½	109½
South Indian — Great Southern of India	—	—	—	—	—	—	—	—	48½	82	83	82	82	126½	143½	167	167	167	167	167	167	185½	281½	474½	590½	612½	633	653½
South Indian — Carnatic§	—	—	—	—	—	—	—	—	—	—	—	—	18½	18½	18½	18½	18½	18½	18½	18½	18½							
Totals for Guaranteed Railways	20½	71	170	272½	288½	428½	626½	839½	1,587½	2,320½	2,464½	2,911½	3,317½	3,513½	3,881½	3,961	4,209½	4,711½	5,009½	5,301	5,401½	5,594½	5,695	5,897	6,029	6,044	6,072½	6,096½
STATE.																												
Amraoti	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	6	6	6	6	6	6	6	6	6
Bhaonagar Gondal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	105
Calcutta and South-Eastern	—	—	—	—	—	—	—	—	—	15	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Cawnpore and Furrukabad	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49½
Dabhoi (Gaekwar of Baroda's)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20	20	20	20	20	20	40½	56½
Dhond-Manmad	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	145	145	145½
Dildarnagar	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12
Holkar and Sindia-Neemuch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	37	57	107½	107½	171½	171½	254½
Indus Valley	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	501	501	501
Kandahar	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	152
Khamgaon	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	8	8	8	8	8	8	8	8	8	8
Muttra-Hathras	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	29	29	29	29	29	29
Nagpur and Chattisgarh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	53
Nalhati	—	—	—	—	—	—	—	—	—	—	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½
Nizam's	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	121	121	121	121	121	121	121
Northern Bengal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	134½	232	242½	243½
Patna-Gya	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	57	57
Patri	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	22½	22½	22½	22½	22½	22½	22½
Punjab Northern	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	62	103½	103½	103½	103½	280
Rajputana	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	91½	292	379½	400	400	432½	550½	717½
Rangoon and Irrawaddy Valley	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	161	161	161	161
Sindia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	34	66½	66½
Tirhut	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	53*	45	45	79	79†	85	85
Wardha Coal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18½	18½	18½	46½	46½	46½	46½††
Totals for State Railways	—	—	—	—	—	—	—	—	—	15	55½	55½	55½	55½	55½	55½	55½	63½	69½	69½	205½	633½	824	936	1,293½	2,167½	2,411½	3,228½
Totals for all Railways	20½	71	170	272½	288½	428½	626½	839½	1,587½	2,335½	2,520	2,967	3,373	3,569	3,936½	4,016½	4,265	4,775½	5,077½	5,370½	5,606	6,227½	6,519	6,833	7,322½	8,211½	8,484½	9,325

* A temporary line (53 miles) was constructed in 1874 for the conveyance of grain to the famine districts.

† The old Ganges bank station, about one mile from Bajitpur, was shifted, on 23rd December 1878, to a point seven miles farther up the river and immediately opposite Barh-Ghat. This line is a tramway only, and is proposed to be taken up and relaid every year.

‡ Half a mile of the Main Line at Goalundo, which was abandoned in September 1875 on account of erosion in the river bank, was relaid in 1876; thus on 31st December 1875 the open length was less than that on the same date in 1874.

§ This line was called the "Conjeveram Tramway" until 1869.

‖ In 1863, a length of 13 miles from Mooltan to the river bank at Sher Shah was opened, but owing to the river silting up its bed at this Ghat, the Sher Shah section was abandoned in favour of a branch to Rajghat.

¶ The difference in lengths is owing to the Main and Nagpur [illegible]awal being now treated as two single lines, instead of one double, to point of divergence.

** Includes the length (1¾ miles) from Jagati Junction to K[illegible]d

[illegible]ramway.

[illegible]d not 30¾ miles as shewn heretofore.

†† This has been found, after re-measurement, to be the correct mileage.

§§ Additional length caused by the reopening of the Campuli Branch, after closure since 1872.

15. In the course of this Report it will be observed that, in addition to the older and better known terms, Guaranteed and State railways, these works are sometimes spoken of as "Productive," "Protective," and "Provincial." These expressions are applied to certain sub-divisions of State lines, to indicate the financial footing on which they are undertaken and worked, and it may be convenient to describe their several characteristics.

Productive works.

16. A *Productive* work, in the technical language of Indian accounts, is paid for out of borrowed money, and, whether a railway or a canal, is one which is calculated to yield a fair return on the capital outlay upon it within a certain time, that is, such a clear annual revenue as will cover the interest on the capital expended. In the case of railways, it has been ruled that, to justify a line being classed as Productive, there must be good prospect of interest at the rate of 4 per cent. per annum being earned within five years from the date of the line being open for traffic, on the whole capital outlay, including arrears of simple interest incurred up to that date, and the capitalized value of the land revenue and of leave allowances and pensions to the officers and servants. In the case of irrigation works, they are classed as productive only if they can fairly be estimated to prove remunerative to the same extent within ten years of their completion. It has been decided that, for the present, the amount to be annually borrowed for expenditure on Productive Public Works shall be limited to 2,500,000*l.*, or 250 lacs of rupees, and that this shall be distributed in certain proportions, to be fixed each year, amongst railways, canals, and miscellaneous works. Under this arrangement, in the present year a sum of 180 lacs has been assigned to railways, 63 lacs to canals and irrigation, and 7 lacs to the Madras harbour during the present year.

17. The railway works on which the 180 lacs are to be expended consist of the following:—

	Lacs.
Tirhut Railway: extension to Bettiah and Pipra Ghât	25
Ghazipur-Dildarnagar and Cawnpore-Farrukabad	1
Northern Bengal, Tirhut, and Patna-Gya	5
Muttra-Achneyra	3
Rangoon and Irrawaddy	2
Central Provinces: extension of Chattisgarh Railway	20
Punjab Northern: Lahore-Jhelum Section	1
Indus Valley	15
Rajputana and Malwa	49
Dhond and Manmad	1
Stores from England, &c.	15
Contingencies	13
	150
British Burmah: Rangoon-Toungoo	30
Total	180

Protective works.

18. Works which would, from their general character, be productive of revenue, but would not comply with the stringent conditions laid down to admit of their being technically classed as Productive, have been termed *Protective*, on account of their commonly serving as a protection against famine, by facilitating the import of food in times of scarcity, or adding to the security against drought. A railway or a canal constructed primarily for these purposes will, it is true, in almost every case, sooner or later, yield a surplus revenue, and in one sense be more or less productive. It would be difficult in India to find a district where a railway would not be the means of developing trade and stimulating agricultural produce, and thus obtain a traffic which would become remunerative, while it would also bring into it during a period of scarcity food from places where it is plentiful. But this does not suffice to admit of the grant of borrowed funds for the construction of such works, and a certain sum has been appropriated from the yearly revenues to be applied to those undertakings, which will be the means of relieving the country from famine. There are, unhappily, areas on the continent of India periodically liable to such calamities. These districts have been recently pointed out, and the comparative intensity of the visitations shown, in the report of the Famine Commission appointed by Lord Salisbury in 1878. After a searching investigation of the whole subject, in the course of which a mass of valuable facts was collected, and complete information on the physical and

meteorological characteristics of the various parts of the country were obtained, the Commissioners, who were Lieutenant-General R. Strachey, R.E., C.S.I. (Chairman), Mr. James Caird, C.B., Mr. H. C. Cunningham, Mr. H. E. Sullivan, and Mr. J. B. Peile, reported their conclusions as to the best course to adopt for the future protection of those districts which in past years have been subject to famines, and which will always, for the causes which have hitherto prevailed, be liable to seasons of drought, followed by severe scarcity or famine. These conclusions include recommendations for the extension of railways and canals or other irrigation works. The outlay, of course, would be large, before all that is necessary can be provided, and the means are limited. It has been determined that a sum of 750,000*l.* should be appropriated annually for these purposes out of the 1,500,000*l.* which it was resolved to set apart from the revenue of each year as a "Famine Insurance Fund." If this limit is preserved, a long time must elapse before a complete scheme of protection can be finished; but it may be hoped that it will be possible, as the revenues of the country improve, to spend more on productive works, which would also help to secure the country against the disastrous effects of future drought and famine. The railways sanctioned as "Protective" for the current year are mentioned in para. 7 of this Report.

Provincial works.

19. The term *Provincial*, applied to works of a productive character, means that they have been undertaken on the financial responsibility of the Local Government of a province, under a suitable arrangement with the Supreme Government. The capital is either provided by the Government of India or from provincial sources, or it is borrowed locally, the revenue of the province being held responsible for all interest that may be due on capital advanced by the Imperial Government. Arrangements of this description have been entered into with several of the Provincial Governments, particularly those of Bengal and the North-West Provinces, and 32,410*l.* of the capital for the Muttra-Huthras line; 45,020*l.* of that for the Cawnpore-Furrakabad line, 50,000*l.* of the Dildarnagar-Ghazipur, and 43,270*l.* of the Nagpur-Raipur lines have been raised by means of debenture loans from local residents, who receive interest at 4 or 4½ per cent., and share in surplus profits. The Regular Estimates for 1880–81 show that 312,600*l.* will probably have been spent on Provincial railways during that year.

Application of private enterprise to railways.

20. It is, however, generally acknowledged that the provision made under these different heads for the extension of works of public utility in India are, as the Finance Minister, Major Evelyn Baring, says, "inadequate to meet the present wants of India." A strong hope is accordingly entertained that private enterprise, which has so long and in so many ways been applied to trade, manufactures, and to agricultural products in India may, under certain arrangements which will neither fetter its action nor clash with the interests of the State, become available for the purpose. In a despatch from your Lordship to the Viceroy in January last, it was urged upon the Government of India "that, when any reasonable prospect of success presents itself, an endeavour "should be made to encourage the raising of capital through private agency, on the "exclusive security of the success of the undertaking; but that, in the event of its "becoming apparent that the due execution of this policy is impracticable, it may "become desirable to consider whether a modified system of guarantee might not "advantageously be adopted . . . such as, in respect to time and to the rate of "interest guaranteed, would give the subscribers a real interest in the efficient and "economical administration of the railway." This policy is ably advocated by Major Baring, who, in his Budget Statement, has gone fully into the matter and suggested the kind of support which may properly be given to promoters of railways. In many respects, the present time is favourable. The credit of the Government of India is higher than it has ever been before. The country is quiet and secure from disturbances. Money is plentiful in Europe, and capitalists are seeking investments in all parts of the world. Lines can be constructed cheaply and quickly, and, if carefully selected and prudently managed, may yield profits before very long. One scheme has already been started by an association under the title of the "Bengal Central Railway Company," and they are about to commence with a line from Calcutta to Jessore and Kulna, and a branch to the Eastern Bengal Railway at Ranaghat, which is estimated to cost 1,000,000*l.* Others will, no doubt, follow, and some are now under consideration, but are not sufficiently matured to be noticed in this Report.

See Appendix, extract from Statement.

Contract with Bengal Central Railway Company.

21. The contract between the Government and the Bengal Central Railway Company contains the following conditions:—

The direction and location of the line, as well as the extent and situation of the Calcutta terminus and of the stations and station yards, are to be subject to the

approval of Government. The general character of the structures, permanent way, and rolling stock is to be in conformity with the established standards of the Indian 5 ft. 6 in. gauge.

The Government supply, without cost to the Company, the land required for the original construction of the railway and the works appertaining thereto, and grant a lease of the same to the Company, free of rent, for 99 years.

The Company undertake to raise the capital in due time, and to pay instalments as funds may be needed for the purposes of the Company; these deposits being drawn upon by the Company from time to time as required for expenditure.

The Secretary of State for India is to pay to the Company in London, half yearly, interest at the rate of 4 per cent. per annum, on the capital of the Company deposited with him until the opening of the undertaking for traffic throughout, or until the 30th June 1886, whichever event shall first occur; and if any sections of the railway are open before that time, the net earnings of such sections are to go in diminution of such payment.

All sums thus advanced to the Company by the Secretary of State are to be repaid in London, with simple interest thereon at the rate of 4 per cent. per annum, by the appropriation of half the net earnings of the undertaking in excess of 5 per cent. on the capital for the time being issued, and paid up, until all such advances, with accrued interest, shall have been paid off.

The Secretary of State has power to purchase the undertaking of the Company and its equipment at the end of 30 years, or 50 years, from the 1st January 1882, on giving one year's notice of his intention to do so, and he will then pay to the Company the amount of capital expended, together with a bonus of 25 per cent., subject to a maximum payment of 312,000*l.* as such bonus and so that the whole sum paid for the line shall not exceed 1,812,500*l.*

At the end of 99 years, the works and buildings of the railway, together with the permanent way and structures fixed to the soil, are to become the property of the Secretary of State, who is then to pay the Company the value of the rolling stock and all the moveable property pertaining to the undertaking.

The Government are to endeavour to obtain for the Company running powers over neighbouring lines so as to ensure to the Company convenient access to a suitable terminal station at Calcutta, and to the warehouses and wharves on the Hooghly.

The rates and fares to be charged are to be within maxima to be fixed by Government, such maxima not to be lower than those in force on the Eastern Bengal Railway. The arrangements for the mail services, troops, &c., are the same as on the Guaranteed Railways; and those for maintaining a telegraph on the Company's railway, and a police force, are such as are provided in the contract with the East Indian Railway Company, dated 22nd December 1879.

In case of failure to work the line (by running at least one train each way daily) and in the event of breaches of contract not made good on notice, the Government has power to step in and take possession, on specified terms.

The accounts and the returns of traffic are to be in the forms adopted for other Indian railways; and until all advances made by Government have been repaid by the Company the accounts are to be subject to audit by an officer to be appointed by Government.

An arbitration clause, with the usual provisions, is included in the contract for the settlement of any question on which agreement cannot be arrived at without.

DAMAGE FROM FLOODS.

22. The damage done to railway works during the year 1880 has not been serious compared with many previous years. Rohilkund, however, was visited by severe floods, and the traffic on the Oudh and Rohilkund Railway was suspended for several days in September and October in consequence of breaches in the embankments, which, being raised considerably above the flood level, afforded shelter to the villagers in the neighbourhood, and were the means of preserving life and property. In Madras also, in the Chingleput and Tanjore districts, traversed by the South Indian Railway, the floods were heavy, damaging the line and interfering with the traffic. Damage from floods.

SUPPLIES FROM THIS COUNTRY.

23. The following tables relate to the shipping operations of the last year in connexion with the Railways. The rates of freight vary greatly according to the character of the stores, such articles as locomotives being charged for at very high rates, and such articles as rails being taken at relatively low rates.

SHIPPING OPERATIONS, exclusive of Fuel, during 1880, on account of Guaranteed and State Railways.

Port.	Railway.	Route.	*Number of Ships employed.	Number of Tons of Goods shipped.	Value of Goods shipped.	Amount paid for Freight and Insurance.	Average Rate of Freight and Insurance per Ton.
				Tons.	£	£	£ s. d.
To Calcutta	East Indian	*viâ* Suez Canal.	33	4,108	42,018	4,569	1 2 3
		viâ Cape of Good Hope.	47	36,027	216,640	37,064	1 0 7
	GUARANTEED.						
	Eastern Bengal	Canal	11	93	3,016	204	2 3 10
		Cape	20	2,610	26,442	2,826	1 1 8
	Oudh and Rohilkund	Canal	19	1,794	49,441	4,349	2 8 6
		Cape	20	4,859	77,696	4,697	0 19 4
	STATE	Canal	59	4,081	80,003	†8,804	†2 0 9
		Cape	17	5,546	40,266	†5,303	†0 18 4
	Calcutta Totals and Averages		226	59,118	535,522	67,816	Canal 1 15 7 Cape 1 0 4
To Bombay	GUARANTEED.						
	Bombay, Baroda and Central India.	Canal	46	‡4,537	85,219	6,252	1 17 0
		Cape	8	§1,663	11,096	805	1 6 0
	Great Indian Peninsula.	Canal	55	28,637	226,085	38,297	1 6 9
		Cape	—	—	—	—	—
	STATE	Canal	101	50,403	402,231	†86,885	†1 12 6
		Cape	9	5,760	41,147	†7,311	†1 4 0
	Bombay Totals and Averages		219	91,000	765,778	139,550	Canal 1 11 5 Cape 1 4 6
To Madras	GUARANTEED.						
	Madras	Canal	14	699	10,247	1,163	1 13 3
		Cape	7	319	4,243	495	1 11 0
	South Indian	Canal	11	191	5,724	407	2 2 7
		Cape	17	5,327	62,033	8,226	1 10 11
	STATE	Canal	19	466	11,084	†1,157	†2 6 11
		Cape	11	3,210	22,055	†4,068	†1 3 11
	Madras Totals and Averages		79	10,212	115,386	15,516	Canal 2 0 2 Cape 1 8 10
To Kurrachee	GUARANTEED.						
	Sind, Punjab and Delhi	Canal	32	11,007	113,879	17,947	1 13 10
		Cape	—	—	—	—	—
	STATE	Canal‖	95	104,005	762,845	†181,163	†1 14 10
		Cape	1	249	2,189	†373	†1 8 3
	Kurrachee Totals and Averages		128	115,261	878,913	199,483	Canal 1 14 7 Cape 1 8 3
To Rangoon	STATE	Canal	7	23	842	†75	†3 1 9
		Cape	1	13	122	†23	†1 13 5
	Totals and Averages for all Ports		660	275,627	2,296,563	422,463	Canal 1 13 6 Cape 1 1 8

* Probably these numbers include ships which have been employed by different Companies (and perhaps by Government also) on the same voyage.

† These figures do not include insurance. Except in special cases, Government do not insure.

‡ 1,154 tons contracted for delivery in Bombay.

§ 1,048 tons, ditto, ditto, ditto.

‖ Includes certain hipments by the Sind, Punjab and Delhi Railway Company, on account of the Indus Valley State Railway.

24. The amount and cost of coal and other fuel sent out from this country during the year 1880, including the amount paid for freight (which last varies considerably according to the port of delivery) are shown in the following table:—

Railway.	Number of Tons supplied from England.			Total original Cost (exclusive of Freight).			Sum paid for Freight and Insurance.		Average Cost of each Ton when landed in India.			Average Cost of each Ton when *used* in India.		
	Of Coal.	Of Coke.	Of Patent Fuel, &c.	Of Coal.	Of Coke.	Of Patent Fuel, &c.	*Vid* Canal.	*Vid* Cape.	Of Coal.	Of Coke.	Of Patent Fuel, &c.	Of Coal.	Of Coke.	Of Patent Fuel, &c.
				£	£	£	£	£	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
East Indian -	—	48	—	—	82	—	—	43	—	*2 12 3	—	—	—	—
GUARANTEED:														
Bombay, Baroda and Central India -	28,920	198	—	†42,943	†394	—	‡—	‡—	1 9 9	1 19 9	—	1 9 9	1 19 9	—
Eastern Bengal	§490	§156	—	235	239	—	—	428	1 6 10	2 8 7	—	‖—	‖—	—
Great Indian Peninsula -	78,204	—	—	33,879	—	—	2,951	90,546	*1 12 7	—	—	‖—	—	—
Madras - -	—	—	4,652	—	—	2,124	—	5,702	—	—	*1 16 7	—	—	2 0 4
Oudh & Rohilkund - -	No fuel sent out from this country.													
Sind, Punjab and Delhi -	10,813	198	2,111	†17,186	†418	3,536	‡—	‡—	*1 11 9	*2 2 3	*1 6 13 5	‖—	‖—	‖—
South Indian -	¶6,854	—	—	2,873	—	—	—	6,943	1 10 7	—	—	1 12 7	—	—
STATE RAILWAYS - -	19,850	—	2,082	†38,115	—	962	**2,272	‡—	1 18 5	—	1 9 10	1 14 1	—	1 9 10
Totals and Averages -	145,041	594	8,845	135,231	1,133	6,622	5,223	103,662	1 12 6	2 5 8	1 13 3	1 12 1	1 19 9	1 16 10

* Exclusive of landing charges, &c. † Includes freight. ‡ Included in original cost.
§ This is smithy coal and foundry coke only. All the fuel for raising steam is obtained in India.
‖ Not shown in Accounts from India.
¶ 1,740 tons of coal were also obtained by this Company from Australia, at 50*s.* 6*d.* per ton at Negapatam.
** Freight of patent fuel only.

25. The following statement gives the annual shipments from the commencement of operations:—

Period.	Number of Ships employed.*	Number of Ships lost.	Number of Tons of Goods shipped.	Amount paid in England for Goods shipped.
				£
Up to end of 1860 - - -	2,605	39	2,094,686	10,431,976
In 1861 - - - -	407	—	181,621	1,669,443
„ 1862 - - - -	280	1	138,013	1,487,582
„ 1863 - - - -	279	2	166,840	1,285,464
„ 1864 - - - -	233	—	102,318	1,018,164
„ 1865 - - - -	442	2	199,157	1,729,543
„ 1866 - - - -	581	7	312,227	2,527,757
„ 1867 - - - -	512	5	333,329	3,052,652
„ 1868 - - - -	364	3	188,858	1,849,554
„ 1869 - - - -	455	1	211,750	1,432,784
„ 1870 - - - -	461	1	263,449	1,688,209
„ 1871 - - - -	307	6	168,049	707,765
„ 1872 - - - -	318	1	66,534	655,822
„ 1873 - - - -	404	2	201,590	1,561,602
„ 1874 - - - -	426	5	265,114	2,042,136
„ 1875 - - - -	421	—	288,186	1,518,991
„ 1876 - - - -	587	—	296,801	680,929
„ 1877 - - - -	539†	5	458,482‡	1,918,539
„ 1878 - - - -	582†	2	349,142‡	2,104,252
„ 1879 - - - -	518†	3	361,353‡	1,691,811
„ 1880 - - - -	660†	1	430,107‡	2,439,549
Totals - - -	11,381	86	7,077,606	43,494,524

* These numbers probably include ships which have been employed by two or more Companies at the same time.
† Exclusive of ships conveying coal and other fuel. ‡ Includes coal and fuel tonnage.

26. The following statement gives the number of persons holding shares and debentures belonging to the different guaranteed Railway Companies. Compared with the year 1879, the numbers show a diminution. They were then 63,290; on the 31st December 1880 they were 47,058. This is accounted for by the large number who now hold that portion of the capital of the East Indian Railway which was converted into annuities and Government stock, and who were formerly shareholders in that Company:—

Railway.	Number of Shareholders on 31st December 1880.						Number of Debenture Holders.		Total Number of Proprietors on the 31st December 1880.
	Registered in England.			Registered in India.					
	With Stock or Shares to the Amount of 1,000*l.* and upwards.	With Stock or Shares of less Amount than 1,000*l.*	Total in England.	Europeans.	Natives.	Total in India.	Bonds.	Stock.	
Bombay, Baroda and Central India	2,471	3,937	6,408	10	31	41	37	—	6,486
Eastern Bengal	705	1,092	1,797	8	15	23	31	225	2,076
Great Indian Peninsula	5,924	7,992	13,916	39	96	135	131	1,613	15,795
Madras	3,166	4,535	7,701	—	—	—	411	—	8,112
Oudh and Rohilkund	1,157	1,540	2,697	22	20	42	—*	175	2,914
Sind, Punjab and Delhi	3,622	5,291	8,913	33	7	40	—	—	8,953
South Indian	1,003	1,519	2,522	No register in India.			45	155	2,722
Totals	18,048	25,906	43,954	112	169	281	655	2,168	47,058

* Not known.

27. The subjoined table shows the number of annuity holders, &c., in the East Indian Railway on the 31st December 1880:—

Railway.	Deferred Annuity Holders on 31st December 1880. (Registered in England.)			Number of Holders of Debenture Bonds.	Number of Holders of Debenture Stock.	Total Number of Proprietors.
	With Annuity Stock to the amount of 1,000*l.* and upwards.	With Annuity Stock of less amount than 1,000*l.*	Total Number.			
East Indian	1,549	3,045	4,594	151	893	5,638

Numerical Return of all Races employed on open Lines of Railway on the 30th September 1880.

Railways.	General Administration, including Agency, Audit, Account, Paymasters, Stores, Medical, Barrack, Printing, Stationery, and Police Establishment.				Traffic and Telegraph Departments.				Engineer's Department.				Locomotive and Carriage and Wagon Departments, including Steamboat Establishment.				Total.				Number of Miles Open.	Number of Stations.
	Europeans.	East Indians.	Natives.	Total.	Europeans.	East Indians.	Natives.	Total.	Europeans.	East Indians.	Natives.	Total.	Europeans.	East Indians.	Natives.	Total.	Europeans.	East Indians.	Natives.	Total.		
Government of India:																						
East Indian	68	40	3,489	3,606	296	224	8,672	9,192	75	36	15,227	15,338	473	229	10,777	11,479	912	538	38,165	39,615	1,507¾	160
Eastern Bengal (including Damukdia Branch)	14	1	765	780	59	37	2,947	3,043	12	3	(*h*) 2,061	2,076	70	40	2,012	2,122	155	81	7,785	8,021	171¾	36
Oudh and Rohilkund	(*a*) 16	(*a*) 13	(*a*) 578	607	40	10	1,252	1,311	23	9	3,371	(*b*) 3,403	56	42	3,408	3,501	144	74	8,604	8,822	546¾	81
Punjab and Delhi																						
Sind	70	19	928	1,017	152	117	3,020	3,289	39	13	4,679	4,731	195	72	4,597	4,864	456	221	13,224	13,901	(*j*) 680	83
Indus Steam Flotilla																						
Government of Madras:																						
Madras	18	50	538	606	51	389	2,067	2,507	28	84	4,177	4,289	92	395	2,771	3,264	195	918	9,553	10,666	858	106
South Indian	10	24	283	317	21	64	1,673	1,758	13	31	2,800	2,844	88	270	2,022	2,330	82	389	6,778	7,249	648	101
Government of Bombay:																						
Great Indian Peninsula	35	24	1,249	1,308	302	196	4,566	5,064	66	18	15,732	15,816	397	178	8,492	9,067	800	416	30,039	31,255	1,268¾	159
Bombay, Baroda and Central India (*d*)	15	29	739	783	14	28	1,848	1,890	19	3	2,330	2,352	64	148	1,517	1,729	112	208*	6,434	6,754	591¾	85
Holkar and Sindia-Neemuch	13	7	242	262	18	48	469	535	6	5	1,092	1,103	38	17	364	419	75	77	2,167	2,319	253¾	(*e*) 32
Western Rajputana	12	4	56	72	7	8	160	175	8	1	14	23	23	10	393	426	50	23	623	696	82¾	10
Dhond and Manmad	6	7	94	107	8	15	187	210	11	2	695	708	18	4	174	196	43	28	1,150	1,221	145¾	18
Government of Bengal:																						
Calcutta and South-Eastern	1	—	22	23	—	—	65	65	—	1	98	99	—	2	53	55	1	3	238	242	28	8
Nalhati	—	—	14	14	—	—	30	30	—	—	97	97	(*k*) 1	1	49	51	1	1	190	192	27¾	7
Tirhut	(*l*) 3	(*l* & *m*) 2	51	56	6	6	159	171	1	—	328	329	6	7	318	326	16	15	851	882	82	12
Northern Bengal	8	2	208	218	6	14	778	798	8	2	1,403	1,413	26	14	340	380	48	32	2,729	2,809	230	28
Patna-Gya	—	—	42	42	2	5	65	72	3	—	435	438	1	8	126	135	6	13	668	687	57	8
Government of North-Western Provinces and Oudh:																						
Muttra-Hathras	(*n*) 2	—	25	27	(*n*) —	—	34	34	(*n*) —	1	48	49	2	—	44	46	4	1	151	156	29	5
Central Provinces:																						
Wardha Coal	4	1	34	39	—	2	73	75	—	—	390	390	3	4	38	45	7	7	535	549	45	4
Nagpur and Chattisgarh	1	4	14	19	2	7	50	59	—	—	—	—	9	4	77	90	12	15	141	168	53	6
British Burmah:																						
Rangoon and Irrawaddy Valley	11	28	62	(*c*) 101	13	71	225	309	5	11	874	890	24	34	268	326	53	144	1,429	1,626	161	24
Resident, Hyderabad:																						
Khamgaon	½	½	6	7	—	1	13	14	—	—	15	15	—	—	1	1	½	1½	35	37	7¾	1
Amraoti	½	—	10	11	1	2	15	18	—	—	15	15	1	—	6	7	2½	2½	46	51	5¾	1
Nizam's	4	19	133	152	4	26	186	216	3	4	526	533	6	21	193	220	17	61	1,043	1,121	121	12
Director General of Railways:																						
Rajputana	21	24	538	583	32	35	1,031	1,098	10	6	2,197	2,222	(*f*) 119	(*g*) 121	2,458	2,698	191	186	6,224	6,601	495	62
Sindia																						
Punjab Northern	5	1	83	(*p*) 89	25	44	582	651	8	4	430	442	99	19	1,108	1,226	137	68	2,203	2,408	171¾	25
Indus Valley and Lower Section, Kandahar	34	44	278	326	50	121	1,407	1,578	57	19	3,113	3,189	141	36	2,416	(*q*) 2,593	282	190	7,214	7,686	(*r*) 641	64
Total Indian Railways	372	814	10,486	11,172	1,118	1,470	31,574	34,162	404	253	62,147	62,804	1,908	1,676	44,012	47,596	3,802	3,713	148,219	155,734	8,817½	1,138

(*a*) Exclusive of Government servants in Audit Establishment. (*b*) Includes 2 Europeans and 22 Natives employed on Ganges Bridge Works, Benares. (*c*) Exclusive of Police Establishment, the charges for which are now debited to Civil Department.
(*d*) Includes Dabhoi Railway. (*e*) Includes Mortakka and Patalpani. (*f*) Includes 5 West Indians and Africans. (*g*) Includes 3 Parsees. (*h*) Of this, 672 are extra men for miscellaneous and extra work.
(*j*) Including Delhi and Shahdara Stations. (*k*) Employed on both the Calcutta & South-Eastern and Nalhati State Railways. (*l*) Employed on both the Tirhut and Patna & Gya State Railways. (*m*) Anglo-Indians.
(*n*) The Executive Engineer is in general charge of the line and branch. The Auditor does the duties of Traffic Inspector. (*p*) Exclusive of Police and Store Departments. (*q*) Includes workshop labourers.
(*r*) Inclusive of the portion of the Sind, Punjab and Delhi Railway between Mooltan and Muzafferabad (7 miles).

NUMERICAL RETURN of CASUALTIES, whether by Death, Resignation and Discharge, or Dismissal, among the European

Railways.	General Administration, including Agency, Audit, Account, Paymaster's, Stores, Medical, Barrack, Printing, Stationery, and Police Establishments.										Traffic and Telegraph Departments.										Engineer's				
	Europeans.					East Indians.					Europeans.					East Indians.					Europeans.				
	Average Number employed.	Number of Casualties by				Average Number employed.	Number of Casualties by				Average Number employed.	Number of Casualties by				Average Number employed.	Number of Casualties by				Average Number employed.	Number of Casualties by			
		Death.	Resignation and Discharge.	Dismissal.	Total.		Death.	Resignation and Discharge.	Dismissal.	Total.		Death.	Resignation and Discharge.	Dismissal.	Total.		Death.	Resignation and Discharge.	Dismissal.	Total.		Death.	Resignation and Discharge.	Dismissal.	Total.
Government of India:																									
East Indian	69	1	6	—	7	48	—	14	2	16	316	4	57	19	83	230	2	42	24	68	75	5	10	—	15
Eastern Bengal (including Damukdia Branch)	14	—	1	—	1	1	—	—	—	—	*57¾	1	13	10	24	*33	1	10	8	19	12½	2	2	2	6
Oudh and Rohilkund	16¾	—	1	—	1	15	—	1	1	2	58	—	8	6	14	17½	—	9	7	16	23	—	—	—	—
Punjab and Delhi																									
Sind	57⅛	1	8	—	9	16	—	5	—	5	159	4	38	44	86	120	2	31	24	57	39	—	16	—	16
Indus Steam Flotilla																									
Government of Madras:																									
Madras	17½	—	—	1	1	51⅓	1	5	—	6	52⅓	1	6	5	12	393	1	25	19	45	28½	1	2	1	4
South Indian	10	—	1	—	1	27	—	3	1	4	19	—	1	1	2	62½	1	14	17	32	16½	—	1	7	8
Government of Bombay:																									
Great Indian Peninsula	35	—	1	—	1	24	—	1	—	1	326	10	45	7	62	222	1	36	4	41	68	—	7	1	8
Bombay, Baroda and Central India.†	15	—	—	—	—	29	—	—	—	—	14	—	4	—	4	29	—	5	—	5	19	2	1	1	4
Holkar and Sindia-Neemuch	10⅝	—	—	—	—	6 1/12	—	—	—	—	15	—	4	—	4	41	3	2	5	10	4⅓	—	2	1	3
Western Rajputana	12	—	—	—	—	4	—	—	—	—	4	—	2	—	2	13	—	4	—	4	19	1	4	—	5
Dhond and Manmad	4	—	1	—	1	8	—	1	—	1	6	—	7	—	7	16	—	9	—	9	11	—	—	2	2
Government of Bengal:																									
Calcutta and South-Eastern	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nalhati	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tirhut	3‡	—	—	—	—	2¼	—	—	—	—	3	—	2	—	2	8	—	2	6	8	1	—	—	—	—
Northern Bengal	13	—	5	—	5	3	—	1	—	1	6	—	1	—	1	14	—	2	1	3	8½	—	4	—	4
Patna-Gya	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	5	—	3	2	5	3	—	—	—	—
Government of North-Western Provinces and Oudh:																									
Muttra-Hathras	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Central Provinces:																									
Wardha Coal	4	—	2	—	2	1	—	—	1	1	—	—	—	—	—	2	—	1	1	2	—	—	—	—	—
Nagpur and Chattisgarh	1	—	—	—	—	2	—	—	—	—	2	—	—	—	—	11	—	3	1	4	—	—	—	—	—
British Burmah:																									
Rangoon and Irrawaddy Valley.	0	—	—	—	—	29	1	6	—	7	18	—	4	3	7	83	—	10	18	28	5	—	—	—	—
Hyderabad:																									
Khamgaon	½	—	1	—	1	½	—	—	½	½	—	—	—	—	—	1	—	1	—	1	—	—	—	—	—
Amraoti	½	—	1	—	1	½	—	—	½	½	1	—	—	—	—	3	—	1	—	1	—	—	—	—	—
Nizam's	4⅔	—	§1	—	1	10½	—	—	2	2	4	—	1	—	1	26	—	4	—	4	3	—	—	—	—
Director General of Railways:																									
Rajputana	39	—	—	—	—	23	1	2	1	4	30	1	8	1	10	34	—	16	12	28	19	—	1	3	4
Sindia																									
Punjab Northern	5½	—	—	—	—	2	—	1	—	1	22⅔	4	12	14	30	40½	1	19	34	54	7½	1	2	—	3
Indus Valley and Lower Section, Kandahar.	28 3/10	—	5	1	6	14 3/10	—	3	1	4	72 1/10	2	37	28	67	99½	1	11	22	34	66½	1	6	3	10
Total Indian Railways	352⅝	2	34	2	38	316½	3	43	10	56	1,187⅔	30	250	188	418	1,504 3/10	13	260	205	478	428½	13	58	21	92

* Entry doubtful. Explanation called for. † Includes Dabhoi Railway. ‡ Employed on both the Tirhut and Patna and Gya State Railways.
§ Transfer of Storekeeper to the Indus Valley Railway.

and East Indian Employés on the Railways open for Traffic in India during the Year ended 30th September 1880.

Department.						Locomotive and Carriage and Wagon Departments, including Steamboat Establishment.										Total.										Mean Mileage Open.	Railways.
East Indians.						Europeans.						East Indians.				Europeans.						East Indians.					
Average Number employed.	Number of Casualties by					Average Number employed.	Number of Casualties by					Average Number employed.	Number of Casualties by			Average Number employed.	Number of Casualties by					Average Number employed.	Number of Casualties by				
	Death.	Resignation and Discharge.	Dismissal.	Total.		Death.	Resignation and Discharge.	Dismissal.	Total.		Death.	Resignation and Discharge.	Dismissal.	Total.		Death.	Resignation and Discharge.	Dismissal.	Total.		Death.	Resignation and Discharge.	Dismissal.	Total.			
																											Government of India:
34	—	4	2	6	491	8	58	19	85	246	1	35	15	51	951	21	131	38	190	558	3	95	43	141	1,507½	East Indian.
2	—	1	—	1	73*	2*	24*	5*	31*	38½	—	12	—	12	157½	5	40	17	62	74½	1	23	8	32	171½	Eastern Bengal (including Damukdia Branch).
8	—	—	—	—	70	1	10	7	18	33	1	7	—	8	167½	1	19	13	33	73½	1	17	8	26	546½	Oudh and Rohilkund.
12	—	1	—	1	216	6	90	48	144	78	1	19	5	25	471½	11	152	92	255	226	3	56	29	88	671	Punjab and Delhi. Sind. Indus Steam Flotilla.
																										Government of Madras:
80½	1	3	3	7	105	2	30	3	35	406	1	38	8	47	206½	4	38	10	52	330½	4	71	30	105	858	Madras.
84½	—	6	13	19	45	1	6	6	13	241½	—	28	8	36	96½	1	9	14	24	365½	1	51	39	97	633	South Indian.
																										Government of Bombay:
19	—	3	—	3	407	7	90	21	118	182	—	56	2	58	836	17	148	29	189	447	1	96	6	103	1,263½	Great Indian Peninsula.
3	—	—	—	—	66	1	12	—	13	143	—	19	1	20	114	3	17	1	21	204	—	24	1	25	489	Bombay, Baroda and Central India.†
4½	—	—	—	—	34½	—	5	6	11	14	—	6	1	7	64½	—	11	7	18	65½	3	8	6	17	207	Holkar and Sindia-Neemuch.
1	—	—	—	—	25	1	7	6	14	13	1	2	4	7	60	2	13	6	21	31	1	6	4	11	82½	Western Rajputana.
1	—	—	1	1	16	—	4	7	11	2	—	—	—	—	37	—	12	9	21	27	—	10	1	11	145½	Dhond and Manmad.
																										Government of Bengal:
1	—	—	—	—	—	—	—	—	—	2	—	—	—	—	1	—	—	—	—	3	—	—	—	—	28	Calcutta and South-Eastern.
—	—	—	—	—	1‡	—	—	—	—	1	—	—	—	—	1	—	—	—	—	1	—	—	—	—	27½	Nalhati.
—	—	—	—	—	7	—	1	—	1	7	—	—	—	—	14	—	3	—	3	17	—	2	6	8	82	Tirhut.
—	—	—	—	—	37	—	6	5	11	24	—	5	5	10	64½	—	16	5	21	41	—	8	6	14	230	Northern Bengal.
—	—	—	—	—	1	—	—	—	—	12	—	4	—	4	6	—	—	—	—	17	—	7	2	9	57	Patna-Gya.
																										Government of North-Western Provinces and Oudh:
1	—	1	—	1	2*	—	—	—	—	—	—	—	—	—	4	—	—	—	—	1	—	1	—	1	29*	Muttra-Hathras.
																										Central Provinces:
½	—	1	—	1	3	—	—	—	—	4	—	1	—	1	7	—	2	—	2	7½	—	3	2	5	45	Wardha Coal.
—	—	—	—	—	9	—	1	—	1	2	—	1	—	1	12	—	1	—	1	15	—	4	1	5	53	Nagpur and Chattisgarh.
																										British Burmah:
11	—	—	—	—	26	—	2	1	3	33	—	3	2	5	58	—	6	4	10	156	1	19	20	40	161	Rangoon and Irrawaddy Valley.
																										Hyderabad:
—	—	—	—	—	1	—	1	—	1	—	—	—	—	—	1½	—	2	—	2	1½	—	1	½	1½	7½	Khamgaon.
—	—	—	—	—	1	—	—	1	1	—	—	—	—	—	2½	—	1	1	2	3½	—	1	½	1½	5½	Amraoti.
4	—	—	1	1	6	—	1	1	2	21	—	2	4	6	17½	—	3	1	4	61½	—	6	7	13	121	Nizam's.
																										Director General of Railways:
6	—	—	1	1	124	4	17	9	30	121	2	31	10	43	192	5	26	13	44	184	3	49	24	76	488½	Rajputana. Sindia.
4½	—	2	—	2	59½	4	22	12	38	10½	—	6	2	8	94½	9	36	26	71	56½	1	28	36	65	140½	Punjab Northern.
20½	—	6	8	9	158	3	29	47	79	53	1	12	27	40	324½	6	77	79	162	187½	2	32	53	87	563	Indus Valley and Lower Section, Kandahar.
247½	1	23	24	53	1,933½	40	416	204	669	1,687½	8	287	94	389	3,953	85	758	365	1,208	3,756	25	618	333	976	8,627½	Total Indian Railways.

* Entry doubtful. Explanation called for. † Includes Dabhoi Railway. ‡ Employed on both the Calcutta & South-Eastern and Nalhati State Railway

PERSONS EMPLOYED.

Number.

28. Statements giving in detail the numbers of persons engaged in the different departments of the railways, and distinguishing the race to which they belong, will be found in the foregoing pages. On 30th September of the year 1880, 155,734 persons were employed on 8,817 miles of line and at 1,138 stations, compared with 142,199 on 7,671 miles and 953 stations of the previous year. More than nineteen twentieths of the whole were Natives, the exact proportions being 95·173 per cent. Natives, 2·386 Eurasians, and 2·441 Europeans, and this is the normal condition of the service. The average number employed on all the lines is under 18 per mile compared with 20 of the previous year.

Proportion of Natives.

Casualties.

29. The casualties among the Europeans during the year ending the 30th September 1880 were 21·5 per 1,000, and among Eurasians 6·6. This is an increase of 4·30 per thousand in the mortality of Europeans, but a decrease of 2·2 as regards Eurasians, compared with the previous year. The numbers dismissed were 365 Europeans and 333 Eurasians, and 758 Europeans and 618 Eurasians resigned.

Native foreman mechanics.

30. The question of training Natives for employment on the railways and in the Public Works Department continues to receive the attentive consideration of Government, and steps have been taken for establishing schools in which they can qualify for the position of foremen mechanics. In Bengal a school has been started in connection with the Calcutta Engineering College. In the North-West Provinces a similar school has been commenced. In Bombay the Government have instituted classes for the same purpose in connection with the Poona Civil Engineering College, and Native schools of industry have been established at Dhulia, Dharwar, Ratnaghiri, and Surat. In Madras the Government consider that provision already exists for the preliminary instruction of Native youths, and adopt a system of apprenticeship at the workshops whereby a training is given before boys attain the position of foreman mechanics.

Native drivers.

31. The employment of Natives as engine drivers is also receiving attention, and while there is still hesitation on the part of some railway managers to leave in their hands the driving of passenger trains, or even goods trains on the main lines, they are employed more than they were on branch lines and as shunters. On the East Indian there are no less than 106 Native drivers, and 117 Native shunters, and Mr. D. W. Campbell, the Locomotive Superintendent, reports that they continue to give satisfaction. In order to extend the movement, and to qualify Natives still more for the duties, 18 Departmental Schools have been established in connection with this railway, and the average daily attendance is about 400 men. Mr. Campbell in his last report states, with just pride, "it is now six years since the scheme, against strong "opposing opinions and many existing difficulties, was launched, and although it has "not yet attained the full extent of usefulness and economy to which it is capable "of being expanded, the results are not only most satisfactory in a monetary point of "view, but also most encouraging in what has already been accomplished, affording "strong incentives for the continuance of the watchful fostering care which has been "bestowed on it by the several officers of the Locomotive Department, to whose "personal exertions these satisfactory results are entirely due." It appears that since April 1875, there has been a saving of 16 lacs of rupees, in wages alone, through the introduction of Native drivers and shunters. On the Oudh and Rohilkund Railway, also owing to the interest taken in the matter by the late Locomotive Superintendent, Mr. Cooke, there are 55 Native drivers who are employed in connection with the goods traffic and in shunting, and large numbers are in training. With the view of keeping alive an interest on the subject, as well as of producing practical results, the Government of India have required an annual report to be furnished by the different railway administrations of the progress made in training during each year.

Education of the Native and Eurasian children.

32. Some advance, although not a considerable one, has been made with respect to providing the means of education on the hills for the children of Europeans and Eurasians employed on the railways. As regards the East Indian Railway, the

Company and the Government have agreed on the necessity for taking measures to supply the deficiency which every year becomes of more pressing importance, and it has been decided to devote certain sums of money which have accumulated from the fines levied on the men, from Savings Banks profits and other sources, to the purchase and adaptation of a building at Mussourie, which is considered to be in a suitable situation for a school. This, however, will not accommodate all that need a sound elementary education in a healthy climate, and other measures are under consideration for extending the means of instruction to all the children. East Indian Railway.

33. The Great Indian Peninsula Railway have agreed to join with the Government in forming a school for the benefit of the children of their servants at Pachmari, a hill station, at an elevation of 3,500 feet, 27 miles from Piparia, about a hundred miles west of Jubbulpore. The climate is described as salubrious, and suitable for the training of European children. It will supply accommodation for about 60 boys, and the Directors have expressed their readiness to provide a similar arrangement for the girls. Schools which have been established at Igatpari and Bhosawul, on their line of railway, are working very well. At the Bombay Scottish Orphanage arrangements have been made which will provide for the education of 15 orphans of the railway servants. Great Indian Peninsula Railway.

34. On the Madras line schools have been established at Jollarpet and Pothanore, where from 80 to 100 pupils are received. The latter does not appear to have been working satisfactorily, and the numbers decreased from 50 to 28 in the course of the year. Madras.

35. In the Punjab good work still continues to be done in the Mussourie school under the superintendence of Mrs. Ross, but the numbers are limited, and a more extended plan for the systematic education of the European children connected with the Punjab appears to be called for. Punjab.

36. The Volunteer movement continues to be well supported. The force consists of various corps, formed by the officers and men on the different railways, and the reports on their efficiency and military bearing have been satisfactory. Volunteers.

ACCIDENTS.

37. The total number of passengers who lost their lives on the railways during the year 1880 was 23, and the number injured was 97, compared with 48 and 136 respectively of the previous year. Those who were killed from causes beyond their control numbered 2, and 18 were injured in the same way, whereas in the previous year the numbers were 30 and 69 respectively. The number thus killed averaged ·004 per million of those who travelled, and, taking the killed and injured together, the number was ·04 per million.

38. Among the servants 22 were killed and 45 were injured from causes beyond their control. This is also an improvement on last year, when the numbers were 26 and 128 respectively; but the casualties arising from incaution and carelessness were again high, 128 having been killed and 330 injured from these causes. It may be desirable to institute some inquiry on this point.

39. Particulars of the accidents will be found in the following tabulated statements:—

Accidents to Persons during the Year 1880 (Companies' Classification).

Railway.	Passengers Killed or Injured from Causes beyond their control.		Passengers Killed or Injured from their own Misconduct or Incaution.		Railway Servants Killed or Injured from Causes beyond their control.		Railway Servants Killed or Injured from their own Misconduct or Incaution.		Persons Killed or Injured at Level Crossings.		Trespassers.		Miscellaneous.		Total Persons of all Classes.		Total Killed and Injured.
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	
East Indian	—	3	8	28	1	3	22	58	—	1	42	6	2	3	75	102	177
Guaranteed.																	
Bombay, Baroda and Central India.	—	—	—	2	—	—	7	31	—	—	2	2	—	—	9	35	44
Eastern Bengal	—	—	—	—	1	—	5	8	1	—	10	1	2	2	19	11	30
Great Indian Peninsula	—	1	—	4	—	1	26	65	—	—	14	3	—	—	40	74	114
Madras	—	—	—	3	1	3	9	16	—	—	1	1	—	—	11	23	34
Oudh and Rohilkund	1	—	1	3	1	7	5	7	—	—	12	1	4	—	24	18	42
Sind, Punjab and Delhi	1	—	2	16	1	5	11	37	—	—	4	2	1	2	20	62	82
South Indian	—	—	—	2	—	2	9	46	4	1	2	2	5	—	20	53	73
State.																	
Calcutta and South-Eastern	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	1	2
Cawnpore and Furrukabad	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Nil
Dhond and Manmad	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	1
Holkar and Sindia-Neemuch	—	—	—	2	1	3	3	3	—	—	—	1	—	—	4	9	13
Indus Valley and Kandahar	—	—	5	4	8	10	8	21	—	—	7	1	—	2	28	38	66
Muttra-Hathras	—	—	1	1	—	—	—	—	—	—	—	1	—	—	1	2	3
Nagpur and Chattisgarh	—	—	—	—	—	1	—	4	—	—	—	—	—	—	—	5	5
Nalhati	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Nil
Northern Bengal	—	—	2	2	1	—	4	9	—	—	5	1	—	—	12	12	24
Patna-Gya	—	—	—	—	—	—	2	1	—	—	2	1	—	—	4	2	6
Punjab Northern	—	9	2	1	2	1	10	6	1	—	4	—	—	—	19	17	36
Rajputana	—	4	—	3	3	3	2	5	—	—	2	—	—	—	7	15	22
„ Western	—	1	—	—	2	1	3	3	—	—	—	—	—	—	5	5	10
Rangoon and Irrawaddy Valley.	—	—	—	7	—	4	1	9	—	—	1	1	—	—	2	21	23
Sindia	—	—	—	—	—	1	—	1	—	—	—	—	1	—	1	2	3
Tirhut	—	—	—	—	—	—	—	1	—	—	1	—	—	—	1	1	2
Wardha Coal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Nil
Native States — Amraoti	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Nil
Native States — Khamgaon	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Nil
Native States — Nizam's	—	—	—	1	—	—	1	1	—	1	—	—	—	—	1	3	4
Totals	2	18	21	79	22	45	128	332	6	3	110	25	16	9	305	511	816

The following Tables shew (1) the Number of Accidents to Trains, Rolling Stock, Permanent Way, &c., distinguishing the different Classes of Accidents; and (2) the Number of Passengers, Railway Servants, and Other Persons reported as Killed or Injured, classifying (as far as practicable) the Nature, and Causes of the Accidents occasioning the Death or Injury, during the Years 1879 and 1880 respectively, on Indian Railways (Government Classification).

TABLE I.

Year.		1. Collisions between Passenger Trains, or parts of Passenger Trains.	2. Collisions between Passenger Trains and Goods, or Mineral Trains, Engines, and Vehicles standing foul of the Line.	3. Collisions between Goods Trains, or parts of Goods Trains.	4. Collisions between Light Engines.	5. Passenger Trains, or parts of Passenger Trains, leaving the rails.	6. Goods Trains, or parts of Goods Trains, Engines, &c., leaving the rails.	7. Trains or Engines travelling in the wrong direction through Points.	8. Trains running into Stations or Sidings at too high a Speed.	9. Trains running over Cattle on the Line.	10. Trains running over obstructions on the Line.	11. Trains running through Gates at Level Crossings.	12. The bursting of Boilers or Tubes, &c., of Engines.	13. The failure of Machinery, Springs, &c., of Engines.	14. The failure of Tyres.	15. The failure of Wheels.	16. The failure of Axles.	17. The failure of Brake Apparatus.	18. The failure of Couplings.	19. The failure of Tunnels, Bridges, Viaducts, or Culverts.	20. Broken Rails.	21. The Flooding of Portions of Permanent Way.	22. Slips in Cuttings or Embankments.	23. Fire in Trains.	24. Fire at Stations, or involving Injury to Bridges or Viaducts.	25. Other Accidents.	Total all Classes.
1879		3	64	89	17	46	321	40	8	993	111	63	95	315	11	13	50	1	99	—	77	33	52	327	99	167	2,393
1880		4	69	107	14	69	323	60	14	993	117	68	60	307	8	25	63	8	90	1	85	49	96	310	76	140	2,499

TABLE II.

Passengers.		From Accidents to Trains.	1. From falling between Carriages and Platforms.	2. Falling on to the Platform, Ballast, &c., when getting into or out of the Trains.	3. Whilst crossing the Line at Stations.	4. By closing of Carriage Doors.	5. Falling out of Carriages during the travelling of Trains.	6. Other Accidents.
1879	Killed.	1	4	4	3	—	7	6
	Injured.	11	4	10	—	6	59	8
1880	Killed.	1	4	4	3	—	7	6
	Injured.	11	4	10	—	6	59	8

TABLE II.—*continued.*

Servants.		From Accidents to Trains, &c.	1. During Shunting Operations.	2. Falling off Engines, Vans, Wagons, &c.	3. Coming in contact with Overbridges, &c., during travelling of Trains.	4. Coming in contact, while shunting, with Vehicles, &c., standing in adjoining Lines.	5. Getting on or off Trains, Engines, &c.	6. Whilst Loading, Unloading, or Shunting.	7. Whilst Breaking, Spragging, or Chocking Wheels.	8. Whilst working at Cranes or Capstans.	9. Whilst working on the Permanent Way or in Sidings.	10. Whilst walking along the Line, on the way home, or to work.	11. Whilst walking, crossing, or standing on the Line.	12. Whilst passing between Vehicles.	13. Whilst attending to the machinery of Engines, cleaning them, &c.	14. Whilst attending to Gates at Level Crossings.	15. Falling, or being caught between Vehicles and Platforms.	16. Falling off Ladders, Scaffolds, Platforms, &c.	17. By falling of Lamps, Wagon-doors, Timber, Weights, &c.	18. Whilst Coupling or Uncoupling Wagons.	19. Miscellaneous.
1879	Killed.	14	14	10	1	2	14	5	1	4	7	4	33	3	2	6	1	1	3	1	8	13
	Injured.	81	31	57	6	—	33	42	4	4	13	1	30	4	40	1	9	6	6	5	36	51
1880	Killed.	10	14	10	4	4	14	5	1	1	2	4	33	3	2	6	1	1	3	1	8	13
	Injured.	82	31	57	9	2	33	42	4	4	13	1	30	4	40	1	9	6	6	5	36	51

Others.		Whilst passing over the Line at Level Crossings.	Trespassers.	Suicides.	Miscellaneous.
1879	Killed.	6	23	21	6
	Injured.	2	24	1	8
1880	Killed.	6	23	21	6
	Injured.	2	24	1	8

CAPITAL.

40. A sum of 6,374,353*l.* has been expended on capital account during the year, ending the 31st March as regards Guaranteed railways, and ending the 31st December as regards State lines, to which date only accounts have been received. It may be estimated that at least 500,000*l.* has been expended on State lines between the 31st December and the 31st March last.

41. Of the 6,374,353*l.*, the expenditure of which statements have been received, 610,973*l.* has been laid out on Guaranteed lines, 83,469*l.* on the East Indian line, 5,051,638*l.* on State lines (of which 2,072,928*l.* was for the Frontier railways), and 628,273*l.* on lines in Native States.

42. The total amount of capital expenditure on Indian railways has thus been raised to 129,098,964*l.*, of which there has been expended,—

	£
On the East Indian Railway - - -	30,970,407
„ Guaranteed lines - - -	66,518,261
„ State lines - - - -	29,589,157
„ Lines in Native States - - -	2,021,139
	£129,098,964

43. The capital expended on the East Indian Railway is given at 30,970,407*l.*, but it will be recollected that the old capital of the Company was converted into an annuity at the time of the purchase. For the sake of comparison with former years and with other railways, the sum which has heretofore been accepted as the capital expenditure plus the 83,469*l.* expended since the new contract came into operation is taken as representing the capital of the present undertaking.

44. The capital expended on State lines has been raised generally at 4 per cent.

45. The sum of 67,282,930*l.*, which is the amount of capital raised by all the Guaranteed Railways, with the exception of the East Indian, is held in the following shape, viz.:—

			£
Share capital, raised at 5 per cent.	-	-	56,643,423
„ „ „ 4¾ „	-	-	1,209,528
„ „ „ 4½ „	-	-	500,000
Debentures „ 4 „	-	-	4,951,450
Debenture stock „ 4½ „	-	-	425,000
„ „ „ 4 „	-	-	3,497,458
Capital not bearing interest	-	-	*56,071

* The difference between this amount and that given in Statement No. 2 is thus explained:—

	£	£
Premium on share capital and debentures - - - -		338,528
Discount on debenture stock,—		
Stock represented as shown above - - -	3,922,458	
Cash received (per Statement No. 2) - - -	3,629,878	
	292,580	
Discount on debentures,—		
Amount of debt shown above - -	4,951,450	
Cash received (per Statement No. 2) - -	4,941,573	
	9,877	
		302,457
		£56,071

46. It will have been noticed that the sum expended on railways during the past year was larger than it has been for many years. An outlay of about 40 millions has taken place since 1870–71, of which more than thirty-one and a half millions have been expended on new State and Provincial lines and lines in Native States.

Growth of Capital Account.

47. The growth of the Capital Account is due, therefore, in the first place to the additional lines which have been constructed. Ten years ago, when the mileage open was 5,050 miles, the capital expenditure had been 88,100,000*l.* Now the capital expended has reached 129,099,000*l.*, and the length open is 9,325 miles, showing an average cost of 16,445*l.* per mile in 1870 compared with 13,844*l.* in 1880. In the former period there were only 588 miles laid with a double line, and about 770 miles of sidings; in the latter 806 miles were double, and there were 1,326 miles of sidings. But expenditure is continually going on in "additions and improvements as well." The requirements of increased traffic, the convenience and comfort of passengers, and accommodation for the staff make additions necessary to the stations, to the shops, to buildings of all kinds, and to the locomotive and rolling stock. The length of double line on the East Indian has been increased by 11 miles, and on the Great Indian Peninsula by 37 miles. On the Madras 28 miles of new line have been added and 42 have been doubled. The number of locomotives on the eight Guaranteed Railways has been increased during the last 10 years from 1,285 to 1,647, the passenger carriages from 3,422 to 4,644, and the goods vehicles from 22,966 to 30,043.

48. From whatever cause this growth of capital expenditure arises, it is very important to restrain, by all legitimate means, the tendency which naturally exists to swell the outlay on capital account in order to make a better show on the revenue side; in other words, to allow capital to bear the cost of that which might fairly and reasonably be paid for by revenue. It is admitted that, in a progressive concern like a railway, it is impossible to avoid keeping the Capital Account open to admit the cost of "additions and improvements," but there are many doubtful cases of expenditure, and it is for a wise and prudent administration to insist upon as strict a limit as possible being placed on capital expenditure and upon giving capital the benefit of any doubt. In the new contract for working the East Indian Railway it was arranged that minor expenses for works under Rs. 2,000 each, usually chargeable to capital, should be paid for out of revenue up to an aggregate sum of Rs. 25,000 each half year; and on State Railways, when once they are open for traffic, the cost of works ordinarily chargeable to capital is charged to revenue up to a mileage rate per annum of Rs. 150 per mile open. This is proceeding in the right direction, and it is to be hoped that the principle will be extended and acted on by other administrations.

Capital expended between 1871 and 1881.

49. The following statement shows the amount of capital which had been expended on each railway in 1871 and 1881 respectively, with the mileage of single and double line open then and now:—

	1871.			1881.		
	Mean Mileage open.	Double, exclusive of Sidings.	Capital expended.	Mean Mileage open.	Double, exclusive of Sidings.	Capital expended.
			£			£
East Indian	1,504	399	30,401,276	1,504	410¼	30,970,407
Bombay, Baroda and Central India	312	18½	7,436,150	421	23	7,021,161
Eastern Bengal	169	—	2,860,000	158	—	8,277,832
Great Indian Peninsula	1,272	287	22,417,464	1,288	324½	23,477,979
Madras	832	—	9,748,135	860	42½	10,439,121
Oudh and Rohilkund	42	—	2,766,400	546	—	6,063,583
Sind, Punjab and Delhi	674	5	10,106,700	662	4½	11,028,954
South Indian	168	—	1,656,067	653	—	4,309,381

Statement of Expenditure in England and in India on Indian State

State Railways.	Expenditure appropriated.			Classification of Expenditure.				
	England.	India.	Total.	Preliminary Expenses.	Land.	Construction of Line.	Ballast and Permanent Way.	Stations and Buildings.
RAILWAYS CONSTRUCTED AND UNDER CONSTRUCTION.	£	£	£	£	£	£	£	£
Calcutta and South-Eastern	259,380	412,997	672,377	6,769	93,507	107,529	153,491	69,322
Nalhati	37,705	—2,832	34,873	—	—	2,169	19,042	2,560
Rajputana	1,090,757	2,439,156	3,529,913	62,989	57,163	694,968	1,104,124	499,547
Sambhar Salt Extension	—	80,713	80,713	33	—	25,638	48,016	5,435
Western Rajputana — Northern Section	72,945	493,518	566,463	15,433	55	175,015	249,429	34,463
Western Rajputana — Southern Section	219,642	706,543	926,185	35,902	2,902	325,969	239,920	97,413
Holkar	341,468	905,193	1,246,661	21,699	7,535	585,699	225,213	127,028
Wardah Coal	69,780	503,738	573,518	9,164	466	157,394	205,061	34,873
Punjab Northern, Lahore to Rawalpindi	740,683	3,330,060	4,070,743	84,902	46,951	1,845,689	810,135	175,064
Lalla Musa Salt Branch	—	177,408	177,408	1,487	440	21,820	91,391	13,262
Indus Valley	1,403,533	4,891,089	6,294,622	198,116	26,444	2,184,768	1,763,895	433,169
Northern Bengal	528,632	1,569,828	2,098,460	12,648	82,945	567,777	548,361	235,773
Sindia-Neemuch	461,946	1,192,515	1,654,461	73,947	1,471	465,132	484,006	114,439
Rangoon and Irrawaddy Valley	236,151	1,022,583	1,258,734	5,659	18,149	290,800	425,495	178,616
Sindia	146,192	670,133	816,325	26,486	2,053	447,110	209,945	62,014
Tirhut	175,710	385,525	561,235	920	16,691	88,034	198,149	75,111
Nagpur and Chittisgarh	158,136	396,379	554,515	21,342	918	144,290	121,728	48,123
Dhond and Manmad	420,400	652,523	1,072,923	12,870	3,990	299,923	436,368	49,281
Patna and Gya	85,656	264,296	349,952	691	12,843	53,668	181,672	34,078
Cawnpore and Furrukabad	75,048	198,184	273,232	2,977	5,236	38,599	139,156	24,584
Ghazipur and Dildarnagar	—	56,330	56,330	222	405	7,945	34,751	6,822
Achnera and Muttra	—	11,270	11,270	161	899	5,768	333	1,120
Muttra and Hathras	—	108,816	108,816	92	1,557	3,475	52,977	12,191
Frontier State Railways — Punjab Northern (Northern Section).	186,452	749,084	935,536	37,094	7,611	216,786	43,126	63,599
Frontier State Railways — Kandahar Railway	168,820	1,349,166	1,517,986	19,428	1,563	212,372	704,962	72,598
Bhopal	—	12,184	12,184	11,999	—	—	—	—
Total	6,879,036	22,576,399	29,455,435	573,030	391,794	8,968,337	8,550,746	2,470,335
SURVEYS AND RAILWAYS IN ABEYANCE.								
Bombay—Eastern Deccan	—	972	972	966	4	—	—	—
Cawnpore-Kalpi	—	491	491	473	—	—	—	—
Bellary and Karwar	2,501	65,590	68,091	64,617	—	—	—	—
Hajipur Extension	—	350	350	350	—	—	—	—
Jhinjurpur	—	347	347	347	—	—	—	—
Bettiah	—	1,862	1,862	1,862	—	—	—	—
Palamow	—	469	469	469	—	—	—	—
Moradabad	—	1,941	1,941	1,941	—	—	—	—
Amritsar and Pathankote	—	3,016	3,016	3,017	—	—	—	—
Bareilly and Phillibhit	—	3,652	3,652	3,637	—	—	—	—
Central Bengal	—	12,338	12,338	12,340	—	—	—	—
Goruckpur	—	4,253	4,253	4,258	—	—	—	—
Gonda	—	2,599	2,599	2,601	—	—	—	—
Maú-Ranipur	—	7,158	7,158	7,161	—	—	—	—
Banda	—	8,359	8,359	8,364	—	—	—	—
Jaunpur	—	3,332	3,332	3,334	—	—	—	—
Lucknow	—	4,166	4,166	4,168	—	—	—	—
Bhopal Railway Extension	—	103	103	28	—	—	—	—
Umballa and Kalka	—	1,345	1,345	1,309	—	—	—	—
Dacca and Mymensing	—	4,876	4,876	4,880	—	—	—	—
Rungpur and Dhubri	—	3,566	3,566	3,571	—	—	—	—
Provincial Surveys, Central Provinces	—	436	436	386	—	—	—	—
Total	2,501	131,221	133,722	130,078	4	—	—	—
Grand total	6,881,537	22,707,620	29,589,157	703,108	391,798	8,968,337	8,550,746	2,470,335
NATIVE STATES.								
Nizam's	146,157	1,072,932	1,219,087	14,544	—	406,898	473,995	127,133
Khamgaon	—	51,989	51,989	37	111	11,046	27,860	4,638
Amraoti	13,208	31,351	44,559	1,180	245	9,528	24,124	4,330
Mysore	—	213,574	213,574	9,427	6,367	62,629	55,927	15,993
*Bhaonagar-Gondal	—	491,930	491,930	5,176	—	63,108	197,149	19,957
Total	159,363	1,861,776	2,021,139	30,364	6,723	553,209	782,046	172,051

* Called previously Katywar Railway.

Railways appropriated to the various Undertakings to 31st December 1880.

Classification of Expenditure.								State Railways.
Steam Ferries.	Electric Telegraph.	Collieries.	Plant.	Rolling Stock.	Establishment.	Suspense Account.	Receipts on Capital Account deducted.	
								RAILWAYS CONSTRUCTED AND UNDER CONSTRUCTION.
£	£	£	£	£	£	£	£	
—	—	—	7,788	119,130	106,448	8,393	—	Calcutta and South-Eastern.
—	—	—	750	5,000	3,000	2,352	—	Nathati.
—	—	—	68,033	631,707	208,809	205,077	2,504	Rajputana.
—	—	—	258	—	1,333	—	—	Sambhar Salt Extension.
—	—	—	9,157	—	45,304	37,959	352	Western Rajputana { Northern Section. Southern Section.
—	—	—	27,464	93,589	61,743	41,818	535	
—	—	—	31,679	114,715	133,376	3,308	4,091	Holkar.
—	—	34,003	35,370	25,427	60,838	11,809	887	Wardah Coal.
—	—	—	189,055	258,080	466,871	204,271	10,314	Punjab Northern, Lahore to Rawalpindi.
—	—	—	1,705	38,593	8,827	136	73	Lalla Musa Salt Branch.
336	—	—	160,919	678,132	685,687	262,879	9,723	Indus Valley.
38,108	—	—	69,918	233,472	225,247	88,595	4,384	Northern Bengal.
—	—	—	87,423	141,562	171,833	166,545	1,897	Sindia-Neemuch.
—	—	—	37,661	168,899	106,069	28,010	624	Rangoon and Irrawaddy Valley.
—	—	—	3,569	13,386	53,173	1,135	2,546	Sindia.
19,535	—	—	21,223	57,764	57,566	26,660	423	Tirhut.
—	—	—	15,375	63,486	40,900	98,622	269	Nagpur and Chattisgarh.
—	—	—	22,699	88,903	72,771	27,076	958	Dhond and Manmad.
—	—	—	5,614	9,613	24,053	27,857	137	Patna and Gya.
—	—	—	3,634	37,686	18,958	2,423	21	Cawnpore and Furrukabad.
—	—	—	528	—	5,669	—	12	Ghazipur and Dildarnagar.
—	—	—	104	—	2,157	730	2	Achnera and Muttra.
—	—	—	768	26,249	7,343	4,185	21	Muttra and Hathras.
—	—	—	32,124	124	46,517	488,830	275	Frontier State Railways { Punjab Northern (Northern Section). Kandahar Railway.
—	—	—	64,181	66,200	48,462	328,664	444	
—	—	—	—	—	—	189	4	Bhopal.
57,979	—	34,003	847,004	2,871,726	2,663,454	2,067,523	40,496	Total.
								SURVEYS AND RAILWAYS IN ABEYANCE.
—	—	—	2	—	—	—	—	Bombay-Eastern Deccan.
—	—	—	—	—	—	18	—	Cawnpore-Kalpi.
—	—	—	—	—	—	3,474	—	Bellary and Karwar.
—	—	—	—	—	—	—	—	Hajipur Extension.
—	—	—	—	—	—	—	—	Jhinjurpur.
—	—	—	—	—	—	—	—	Bettiah.
—	—	—	—	—	—	—	—	Palamow.
—	—	—	—	—	—	—	—	Moradabad.
—	—	—	—	—	—	—	—	Amritsar and Pathankote.
—	—	—	—	—	—	15	—	Bareilly and Phillibhit.
—	—	—	—	—	—	—	2	Central Bengal.
—	—	—	—	—	—	—	5	Goruckpur.
—	—	—	—	—	—	—	2	Gonda.
—	—	—	—	—	—	—	3	Mau-Ranipur.
—	—	—	—	—	—	—	5	Banda.
—	—	—	—	—	—	—	2	Jaunpur.
—	—	—	—	—	—	—	2	Lucknow.
—	—	—	—	—	—	75	—	Bhopal Railway Extension
—	—	—	—	—	—	39	3	Umballa and Kalka.
—	—	—	—	—	—	—	4	Dacca and Mymensing.
—	—	—	—	—	—	—	5	Rungpur and Dhubri.
—	—	—	—	—	—	50	—	Provincial Surveys, Central Provinces.
—	—	—	2	—	—	3,671	33	Total.
57,979	—	34,003	847,006	2,871,726	2,663,454	2,071,194	40,529	Grand Total.
								NATIVE STATES.
—	—	—	19,962	59,528	109,380	12,864	8,212	Nizam's.
—	—	—	350	3,729	3,072	1,170	24	Khamgaon.
—	—	—	302	856	2,861	1,133	—	Amraoti.
—	—	—	3,953	1,002	22,950	35,999	673	Mysore.
—	—	—	5,912	480	28,907	167,798	548	*Bhaonagar-Gondal.
—	—	—	34,479	65,590	167,170	218,964	9,457	Total.

* Called previously Katywar Railway.

A. J. FILGATE, Major, R.E.,
Deputy Accountant General.

STATEMENT No. 2.

GUARANTEED RAILWAYS.

Shewing the AMOUNT of CAPITAL authorized to be raised for each Undertaking as now sanctioned, the Amount raised, and the Amount withdrawn, to 31st March 1881.

Railway.	Amount authorized to be raised on 31st March 1881.					Amount raised in England to 31st March 1881.						Amount raised in India to Date of last Advices.		Total Amount raised to 31st March 1881.	Total Amount withdrawn to 31st March 1881 (partly estimated).
	Share Capital.	Debentures.	Debenture Stock.	Capital not bearing Interest.	Total.	Share Capital.	Debentures.		Debenture Stock.		Capital not bearing Interest.	Share Capital.	Capital not bearing Interest.		
							Amount of Debentures.	Cash received.	Stock represented.	Cash received.					
	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Bombay, Baroda and Central India	7,550,300	575,000	—	35,387	8,160,687	7,528,628	*575,000*	571,250	—	—	35,387	21,672	—	8,156,937	7,921,161
Eastern Bengal	2,255,520	612,350	411,308	2,288	3,281,466	2,238,996	*612,350*	612,350	*411,308*	374,730	2,288	16,486	—	3,244,850	3,277,832
Great Indian Peninsula	20,000,000	928,800	3,065,300	229,602	24,223,702	19,503,103	*928,800*	927,673	*2,701,450*	2,475,559	228,860	496,897	742	23,632,884	23,477,979
Madras	10,267,850	400,000	—	10,122	10,677,972	10,260,001	*400,000*	400,000	—	—	10,122	—	—	10,670,123	10,439,121
Oudh and Rohilkund	4,000,000	2,115,300	384,700	11,488	6,511,488	3,575,581	*1,815,300*	1,815,300	*384,700*	354,589	11,488	424,419	—	6,181,377	6,063,883
Sind, Punjab and Delhi	11,418,900	—	—	4,363	11,423,263	10,988,984	—	—	—	—	4,336	86,306	27	11,079,653	11,028,954
South Indian	3,211,878	620,000	425,000	65,278	4,322,156	3,210,657	*620,000*	615,000	*425,000*	425,000	65,223	1,221	55	4,317,156	4,309,331
Total	58,704,448	5,251,450	4,286,308	358,528	68,600,734	57,305,950	*4,951,450*	4,941,573	*3,922,458*	3,629,878	357,704	1,047,001	824	67,282,930	66,518,261

India Office, 5th April 1881.

THOS. W. KEITH,
Accountant General.

	Capital on the 31st March 1880, representing Annuity and Debentures and Debenture Stock transferred to Government.	Advanced during the Year ending 31st March 1881.	Total.
	£	£	£
East Indian Railway	30,886,943	83,464	30,970,407

Statement No. 3.

Guaranteed Railways.

Shewing the Amount received from and withdrawn by each Company during the Year ended 31st March 1881.

Railway.	Sums standing to the Credit of the Companies on the 31st March 1880.	Sums advanced to the Companies on the 31st March 1880.	Amount received						Amount withdrawn					Total received during the Year ended 31st March 1881.	Total withdrawn during the Year ended 31st March 1881.
			In England, between 1st April 1880 and 31st March 1881.				In India, between 1st April 1880 and the Date to which Accounts have been received.		In England, between 1st April 1880 and 31st March 1881.		In India.				
			Share Capital.	Debentures.	Debenture Stock.	Capital not bearing Interest.	Share Capital.	Capital not bearing Interest.	On account of Stores, Establishment Charges, &c.	For Discharge of Debentures.	Date to which Accounts have been received.	Amount.	Estimated Withdrawals between Dates specified and 31st March 1881.		
	£	£	£	£	£	£	£	£	£	£		£	£	£	£
Bombay, Baroda and Central India.	314,268	—	—	—	—	—	—	—	107,921	—	31st December 1880	10,571	*40,000*†	—	78,492
Eastern Bengal	12,374	—	—	—	—	—	—	—	42,440	—	„	17,915	*15,000*†	—	45,355
Great Indian Peninsula.	227,479	—	—	—	—	—	—	—	391,834	—	„	*119,209**	*200,000*†	—	72,625
Madras	179,192	—	120	—	—	—	—	—	47,979	—	„	*44,669**	*55,000*†	120	*51,690*
Oudh and Rohilkund	130,052	—	—	200,000	—	3,141	—	—	129,930	—	„	65,769	20,000	203,141	215,699
Sind, Punjab and Delhi.	200,960	—	—	—	—	—	80	—	139,685	—	„	10,656	—	80	150,341
South Indian	107,975	—	—	—	—	—	—	—	89,218	—	„	20,983	*10,000*†		100,151
Total	1,172,300	—	120	200,000	—	3,141	80	—	949,007	—	—	*38,034**	*300,000*†	203,341	610,973

* Transfers of expenditure to Revenue Account, Sale proceeds of Stores, Refunds, &c., exceed by these sums the amounts withdrawn in India on Capital Account during the year.

† It is estimated that, on receipt of advices from India regarding transfers, which are several months in arrear of cash transactions, transfers of expenditure to Revenue Account, &c., will have exceeded the withdrawals to this extent.

India Office, 5th April 1881.

Thos. W. Keith,
Accountant General.

STATEMENT of WITHDRAWALS out of CAPITAL for EXPENDITURE; shewing the Amount withdrawn in England and in India by all the Guaranteed Indian Railway Companies during each Financial Year from the commencement to 31st March 1881.

Year.	England.	India.	Total.
	£	£	£
1849–50	69,211	6,682	75,893
1850–51	61,164	38,099	99,263
1851–52	154,212	197,111	351,323
1852–53	174,920	252,640	427,560
1853–54	252,484	418,165	670,649
1854–55	960,878	769,278	1,730,156
1855–56	1,935,074	1,431,337	3,366,411
1856–57	1,752,813	1,762,287	3,515,100
1857–58	1,328,243	2,094,825	3,423,068
1858–59	1,941,033	3,551,075	5,492,108
1859–60	2,508,668	4,662,796	7,171,464
1860–61	2,388,315	5,190,400	7,578,715
1861–62	1,597,430	5,004,782	6,602,212
1862–63	1,852,393	4,010,951	5,863,344
1863–64	1,415,146	3,340,507	4,755,653
1864–65	1,396,821	2,725,419	4,122,240
1865–66	2,222,679	3,414,187	5,636,866
1866–67	3,958,357	3,339,346	7,297,703
1867–68	3,924,490	3,195,591	7,120,081
1868–69	1,702,452	2,165,475	3,867,927
1869–70	2,298,680	2,444,171	4,742,851
1870–71	1,899,054	1,877,216	3,776,270
1871–72	886,996	1,609,732	2,496,728
1872–73	822,995	*345,750**	477,245
1873–74	1,028,032	*334,979**	693,053
1874–75	1,174,893	*86,982**	1,087,911
1875–76	1,151,585	*200,779**	950,806
1876–77	1,222,846	*507,387**	715,459
1877–78	1,793,662	*469,678**	1,323,984
1878–79	1,786,234	*773,611**	1,012,623
1879–80	1,256,417	*906,857**	349,560
Total expenditure to end of 1879–80, as shewn in the Indian Finance and Revenue Accounts	46,918,177	49,876,049	96,794,226
Deduct: Withdrawals by East Indian Railway Company to 31st December 1879	12,283,746	18,603,192	30,886,938
	34,634,431	31,272,857	65,907,288
1880–81 (partly estimated)	949,007	*338,034**	610,973
Total	£35,583,438	30,934,823	66,518,261

* Transfers of expenditure to Revenue Account, Sale proceeds of Stores, Refunds, &c., exceed by these sums the amount withdrawn in India on Capital Account.

India Office, 5th April 1881. THOS. W. KEITH, Accountant General.

STATE of DEBENTURE LOANS on the 31st March 1881.

Railway.	Amount.		Rate of Interest	Date at which Loan expires.
	£	£		
Bombay, Baroda and Central India	200,000		4	1st January 1882.
" " "	375,000		4	1st August 1884.
		575,000		
Eastern Bengal	150,000		4	19th May 1884.
"	52,650		4	1st November 1884.
"	409,700		4	12th July 1886.
		612,350		
Great Indian Peninsula	320,500		4	1st January 1884.
" " "	568,800		4	1st July 1885.
" "	39,500		4	1st January 1886.
		928,800		
Madras	200,000		4	30th June 1882.
"	200,000		4	31st December 1883.
		400,000		
Oudh and Rohilkund	590,000		4	1st August 1881.
" "	200,000		4	16th August 1884.
" "	300,000		4	1st May 1885.
" "	615,300		4	4th June 1887.
" "	200,000		4	1st October 1887.
		1,815,300		
South Indian	620,000	620,000	4	1st July 1884.
		£4,951,450		

India Office, 5th April 1881. THOS. W. KEITH, Accountant General.

The Debenture Stock issued by the East Indian Railway, the interest on which, at 4½ per cent., is chargeable on the revenue of the undertaking, amounts to 1,500,000*l.* Besides which there are 1,950,000*l.* Debentures at 4 per cent.

REVENUE.

50. The net revenue derived from all the railways during the year 1880 was 5,907,422*l.*, the gross receipts being 12,099,593*l.*, and the expenses 6,192,171*l.*

51. The revenue of the Guaranteed lines amounted to 2,662,213*l.*, the gross receipts being 5,984,861*l.*, and the expenses 3,322,648*l.* The guaranteed interest in respect of the year amounted to 3,263,179*l.*, being 600,966*l.* in excess of the net revenue. The only Guaranteed lines which realized excess profits on the whole year were the Bombay, Baroda and Central India Railway (33,495*l.*), and the Eastern Bengal Railway (96,008*l.*). The surplus profits of the former were devoted to the reconstruction of the Nerbudda bridge.

52. The net revenue of the East Indian Railway amounted to 2,635,821*l.*, being at the rate of 8·5 per cent. per annum on 30,970,407*l.*, the capital expended upon the undertaking.

53. The surplus profits of the East Indian Railway amounted to 757,086*l.*, of which the Government share (four fifths) was 605,669*l.*, so that the deficiency on the Guaranteed lines was thus covered.

54. Compared with the year 1879, the total net increase of revenue amounted to 534,826*l.*; of which 235,846*l.* is due to the Guaranteed, and 298,980*l.* to the State lines. The increase on the Guaranteed lines was contributed by the Bombay and Baroda, the Eastern Bengal, the Oudh and Rohilkund, the Sind, Punjab, and Delhi, and the South Indian; while all the principal State lines showed an improvement.

55. The receipts on the capital expended amounted, last year, to 4*l.* 11*s.* per cent. In the previous year they were 4*l.* 7*s.*

56. The East Indian and Guaranteed lines combined yielded net profits at the rate of 5·43 per cent. per annum on the capital expended, the State lines at the rate of 2*l.* per cent. per annum. But it must be borne in mind, with regard to the latter, that much of the capital although expended is not yet productive, as many miles of railway are still in course of construction. Some of those which have been opened for traffic a sufficient time to test, in some measure, their productiveness, yielded, last year, 3·5*l.*, 4·23*l.*, 4·50*l.*, and 6·56*l.* per cent. These results are the more satisfactory, as it was thought by many that the Guaranteed lines were in possession of the most lucrative fields for productive traffic, and they are in a great measure due to the relatively small capital outlay on the metre gauge lines.

57. It will be seen by the Statement on page 32 that the result of the year's working of the East Indian Railway under the new contract is to give the Government Rs. 26,82,173 more, as surplus profits, than they would have received under the old contract; and, if the average value of the rupee in 1880 be held to have been 1*s.* 8*d.*, this represents in sterling a gain of 223,514*l.*

58. The following table gives the net earnings of the Guaranteed lines and of the principal State lines during the last five years:—

Railway.	1880.		1879.		1878.		7718.		1876.	
	Net Earnings.	Percentage of Net Earnings per annum on Capital Expenditure.	Net Earnings.	Percentage of Net Earnings per annum on Capital Expenditure.	Net Earnings.	Percentage of Net Earnings per annum on Capital Expenditure.	Net Earnings.	Percentage of Net Earnings per annum on Capital Expenditure.	Net Earnings.	Percentage of Net Earnings per annum on Capital Expenditure.
	£		£		£		£		£	
East Indian	2,635,821	8·50	Main Line 2,456,501 Jabalpur Line 209,250	9·19 6·03	2,150,764	8·14	2,503,192	9·50	1,985,248	7·56
Bombay, Baroda and Central India.	434,610	5·77	347,682	4·61	337,986	4·52	414,845	5·55	280,567	3·77
Eastern Bengal (including the Flotilla).	240,723	7·88	223,073	7·10	239,715	7·73	241,859	7·79	161,903	5·23
Great Indian Peninsula	1,018,009	4·45	935,356	4·10	1,328,364	5·88	1,527,632	6·89	1,169,264	5·32
Madras	179,464	1·76	190,224	1·88	145,565	1·44	374,723	3·76	232,283	2·37
Oudh and Rohilkund	190,441	3·27	181,993	3·24	211,547	3·83	196,760	3·86	122,581	2·36
Sind, Punjab, and Delhi (including the Flotilla).	501,495		416,214	4·63	290,591	2·86	388,945	3·82	237,590	2·38
South Indian	89,126	2·23	101,895	2·60	103,318	2·74	150,421	4·15	89,152	2·66
Rajputana	123,331	3·62	117,916	3·31	112,955	3·99	85,771 (Loss)	3·40	84,238	3·23
Northern Bengal	59,491	3·20	10,099	0·66	20,253	1·43	−1,963	—	Not open.	—
Punjab Northern	56,417	1·39	39,652	1·54	2,909	0·02	9,806	0·50	11,894	0·67
Patna-Gya	Rs. 2,11,256	6·56	Rs. 1,01,787	3·58	—	—	—	—	—	—
Rangoon and Irrawaddy Valley	+1,23,07,244	4·23	1,20,77,402	1·17	—	—	—	—	—	—
Tirhut	53,46,672	4·49	51,33,919	2·10	—	—	—	—	—	—

STATEMENT shewing the REVENUE from the INDIAN RAILWAYS in 1879 and 1880, as given in the Accounts passed by Government.

Railway.		Receipts.				Expenditure.			Per-centage of Expenditure to Gross Receipts.	Net Receipts.
		Passengers.	Goods.	Miscellaneous.	Total.	Maintenance.	Working, &c.	Total.		
		£	£	£	£	£	£	£		£
East Indian	1880	1,070,049	2,734,682	131,904	3,936,635	404,072	896,742	1,300,814	33·04	2,635,821
	1879, Main Line	*926,213*	*2,533,326*	*145,501*	*3,605,040*	*364,879*	*783,660*	*1,148,539*	*31·85*	*2,456,501*
	1879, Jabalpur Line	*98,422*	*236,787*	*30,403*	*365,612*	*33,262*	*123,100*	*156,362*	*42·76*	*209,250*
GUARANTEED RAILWAYS.										
Bombay, Baroda and Central India	1880	247,547	474,982	33,205	755,734	69,491	252,233	321,724	42·57	434,010
	1879	*212,693*	*423,251*	*19,728*	*655,672*	*66,413*	*241,577*	*307,990*	*46·97*	*347,682*
Eastern Bengal*	1880	136,402	263,383	52,696	452,481	36,335	166,418	202,753	42·85	249,728
	1879	*136,805*	*230,124*	*45,930*	*412,859*	*33,295*	*156,491*	*189,786*	*45·96*	*223,073*
Great Indian Peninsula	1880	562,000	1,678,796	46,586	2,287,382	317,044	952,329	1,269,373	55·53	1,018,009
	1879	*557,772*	*1,698,814*	*59,060*	*2,315,646*	*376,600*	*1,003,690*	*1,380,290*	*59·60*	*935,356*
Madras	1880	233,368	306,325	25,207	564,900	113,925	271,571	385,496	68·24	179,404
	1879	*240,276*	*341,964*	*25,188*	*607,428*	*120,362*	*296,842*	*417,204*	*68·68*	*190,224*
Oudh and Rohilkund	1880	191,316	221,667	32,532	445,515	61,476	193,598	255,074	57·25	190,441
	1879	*178,929*	*213,166*	*42,389*	*434,484*	*50,795*	*201,696*	*252,491*	*58·11*	*181,993*
Sind, Punjab and Delhi*	1880	401,831	617,308	118,583	1,137,722	108,524	527,703	636,227	52·47	501,495
	1879	*355,309*	*585,142*	*105,894*	*1,046,345*	*136,404*	*493,727*	*630,131*	*60·22*	*416,214*
South Indian	1880	197,657	138,567	4,903	341,127	54,836	197,165	252,001	73·87	89,126
	1879	*191,957*	*125,502*	*4,739*	*322,198*	*50,391*	*169,912*	*220,303*	*68·37*	*101,895*
Totals for East Indian and Guaranteed Railways	1880	3,040,170	6,435,710	445,616	9,921,496	1,165,703	3,457,759	4,623,462	46·60	5,298,034
	1879	*2,898,376*	*6,388,076*	*478,832*	*9,765,284*	*1,232,401*	*3,470,695*	*4,703,096*	*48·16*	*5,062,188*

* Includes the Flotilla.

STATEMENT SHEWING THE REVENUE FROM THE INDIAN RAILWAYS IN 1879 AND 1880, as given in the Accounts passed by Government—*continued.*

Railway.		Receipts.				Expenditure.			Per-centage of Expenditure to Gross Receipts.	Net Receipts.
		Passengers.	Goods.	Miscellaneous.	Total.	Maintenance.	Working, &c.	Total.		
STATE RAILWAYS.		£	£	£	£	£	£	£		£
Calcutta and South-Eastern	1880	7,687	3,330	3,193	14,210	3,079	7,055	10,134	71·32	4,076
	1879	*8,337*	*3,322*	*1,750*	*13,409*	*2,275*	*6,634*	*8,909*	*66·44*	*4,500*
Cawnpore and Furrukabad	1880	206	10	4	220	—†	513	513	233·18	Loss 293
	1879	—	—	—	*Not opened until 15th December 1880.*			—	—	—
Dhond and Manmad	1880	32,083	33,976	3,451	69,510	9,874	50,814	60,688	87·31	8,822
	1879	*14,347*	*24,682*	*7,726*	*46,755*	*10,070*	*39,452*	*49,522*	*105·91*	*Loss 2,767*
Holkar and Sindia-Neemuch	1880	57,971	78,384	3,793	140,148	27,267	76,539	103,806	74·07	36,342
	1879	*39,743*	*70,724*	*3,746*	*114,213*	*17,270*	*69,267*	*86,537*	*75·76*	*27,676*
Indus Valley and Kandahar	1880	180,391	400,833	66,042	647,266	75,717	378,123	453,840	70·10	193,426
Indus Valley only	*1879*	*79,399*	*220,181*	*28,174*	*327,754*	*49,530*	*216,478*	*266,008*	*81·30*	*61,746*
Muttra-Hathras	1880	8,772	4,465	285	13,522	1,468	5,981	7,449	55·09	6,073
	1879	*3,914*	*3,553*	*126*	*12,593*	*1,393*	*5,529*	*6,922*	*54·96*	*5,671*
Nagpur and Chattisgarh	1880	1,971	8,382	42	10,395	—†	8,268	8,268	76·52	2,127
	1879	—	—	— *The first section of this line was opened on the 6th April 1880.*				—	—	—
Nalhati	1880	4,918	1,908	166	6,992	2,570	4,795	7,365	105·33	Loss 373
	1879	*6,083*	*2,862*	*233*	*9,178*	*1,148*	*5,049*	*6,197*	*67·52*	*2,981*
Northern Bengal	1880	53,110	82,304	9,516	144,930	19,046	66,393	85,439	58·95	59,491
	1879	*44,201*	*67,398*	*13,632*	*125,231*	*29,211*	*85,921*	*115,132*	*91·93*	*10,099*
Patna-Gya	1880	33,810	13,785	561	48,156	4,230	22,800	27,030	56·13	21,126
	1879	*16,945*	*5,001*	*1,105*	*23,051*	*2,673*	*10,199*	*12,872*	*55·84*	*10,179*
Punjab Northern	1880	107,973	186,498	42,357	336,828	30,797	249,614	280,411	83·25	56,417
	1879	*69,313*	*109,481*	*6,444*	*185,238*	*18,166*	*128,013*	*146,179*	*78·91*	*39,059*
Rajputana	1880	106,688	256,985	8,699	372,372	50,645	198,396	249,041	66·88	123,331
	1879	*93,351*	*250,374*	*10,816*	*354,541*	*47,416*	*189,209*	*236,625*	*66·74*	*117,916*
Rajputana (Western)	1880	22,073	30,343	12,594	65,010	5,259	50,513	55,772	85·78	9,238
	1879	*2,187*	*2,235*	*358*	*4,780*	—†	*3,787*	*3,787*	*79·22*	*993*
Rangoon and Irrawaddy Valley	1880	74,522	55,818	1,931	132,271	21,190	58,973	80,163	60·60	52,108
	1879	*69,697*	*24,412*	*1,482*	*95,591*	*26,599*	*54,818*	*81,417*	*85·17*	*14,174*
Sindia	1880	12,587	5,663	13,186	31,436	4,422	18,648	23,070	73·38	8,366
	1879	*6,165*	*3,029*	—103‡	*9,091*	*3,571*	*8,699*	*12,270*	*134·96*	*Loss 3,179*
Tirhut	1880	22,627	20,147	2,518	45,292	6,657	19,563	26,220	57·89	19,072
	1879	*21,224*	*14,866*	*2,554*	*38,454*	*6,869*	*21,782*	*28,651*	*74·50*	*9,803*
Wardha Coal§	1880	2,726	7,458	11,260	21,444	2,383	32,309	34,692	161·70	Loss 13,248
	1879	*2,852*	*10,011*	*12,844*	*25,707*	*2,705*	*22,029*	*24,734*	*96·21*	*973*
Native States — Amraoti	1880	899	4,107	81	5,087	723	4,000	4,723	92·84	364
	1879	*1,824*	*5,629*	*37*	*6,990*	*290*	*5,083*	*5,373*	*76·86*	*1,617*
Native States — Khamgaon	1880	362	2,212	163	2,737	310	1,334	2,244	81·99	493
	1879	*562*	*3,051*	*195*	*3,808*	*429*	*3,406*	*3,835*	*100·70*	*Loss 27*
Native States — Nizam's	1880	30,877	37,431	1,963	70,271	7,258	40,583	47,841	68·08	22,430
	1879	*30,035*	*38,163*	*1,242*	*69,440*	*12,035*	*48,411*	*60,446*	*87·04*	*8,994*
Totals for State Railways	1880	762,253	1,234,039	181,805	2,178,097	272,895	1,295,814	1,568,709	72·02	609,388
	1879	*514,679*	*858,974*	*92,171*	*1,465,824*	*231,650*	*923,766*	*1,155,416*	*78·82*	*310,408*
Grand Total for all Railways	1880	3,802,423	7,669,749	627,421	12,099,593	1,438,598	4,753,573	6,192,171	51·17	5,907,422
	1879	*3,413,055*	*7,247,050*	*571,003*	*11,231,108*	*1,464,051*	*4,394,461*	*5,858,512*	*52·16*	*5,372,596*

† Not stated [illegible] India. ‡ Caused by the adjustment of certain outstandings. § Includes the receipts and expenses on account of the Warora C[illegible]ery.

GUARANTEED RAILWAYS.

Year.	Capital expended to 31st March.	Net Revenue for Year to 31st December.	Guaranteed Interest for Year to 31st December.	Interest in excess of Revenue.	Revenue in excess of Interest.
	£	£	£	£	£
1870 - -	83,910,587	2,846,600	4,344,113	1,497,513	—
1871 - -	87,686,857	2,686,260	4,544,764	1,858,504	—
1872 - -	90,183,585	2,869,223	4,603,853	1,734,630	—
1873 - -	90,660,830	3,185,069	4,613,573	1,428,504	—
1874 - -	91,353,883	3,956,071	4,651,088	695,017	—
1875 - -	92,441,794	3,576,514	4,641,979	1,065,465	—
1876 - -	93,392,600	4,442,430	4,658,947	216,517	—
1877 - -	94,108,059	6,117,226	4,662,635	—	1,454,591
1878 - -	95,430,863	5,002,028	4,708,134	—	293,894
1879 - -	96,444,666	5,062,188	4,748,233	—	313,955
1880* - -	65,907,288	2,662,213	3,263,179	600,966	—

* East Indian Railway excluded.

RESULTS of WORKING the GUARANTEED RAILWAYS for the YEAR ended 31st December 1880.

Railway Company.	Net Revenue.	Guaranteed Interest.	Revenue in excess of Interest.	Interest in excess of Revenue.	Extra Dividend (in excess of Guaranteed Interest) received by the Companies as Surplus Profits.	
					Rate per Cent. for Half Year to 30th June 1880.	Rate per Cent. for Half Year to 31st Dec. 1880.
GUARANTEED.	£	£	£	£	£ s. d.	£ s. d.
Bombay, Baroda and Central India	434,010	400,515	33,495	—	—*	—
Eastern Bengal - - -	249,728	153,720	96,008	—	—	1 18 6
Great Indian Peninsula - -	1,018,009	1,145,210	—	127,201	0 4 6	—
Madras - - - -	179,404	523,997	—	344,593	—	—
Oudh and Rohilkund - -	190,441	281,995	—	91,554	—	—
Sind, Punjab and Delhi - -	501,495	553,747	—	52,252	—	—
South Indian - - - -	89,126	203,995	—	114,869	—	—
Totals - - - -	2,662,213	3,263,179	129,503	730,469	0 4 6	1 18 6
				†600,966		

* Surplus profits at the rate of 1*l.* 15*s.* 5*d.* per cent. in excess of the guaranteed interest were earned by this Company, but applied (according to agreement) to the cost of the Nerbudda Bridge.

† Interest in excess of revenue.

STATEMENT showing Results of the Working of the East Indian Railway Company under the New and Old Agreements, calculated on the Net Traffic Earnings for 1880.

UNDER THE NEW AGREEMENT.			
Net traffic earnings			2,87,54,393
		2,87,54,393	
Interest and annuity (1,629,000*l.*, at 1*s.* 8½*d.* per rupee)	1,90,71,220		
Contribution to Provident Fund	2,87,544		
Interest on value of Stores	3,95,363		
Interest on overdrawn Capital	1,36,816		
		1,98,90,943	
Surplus profits		Rs. 88,63,450	
One fifth payable to Company		17,72,690	
Provident Fund		2,87,544	
Total payments made in India			20,60,234
			2,66,94,159
Payments made in England, 1,629,000*l.*, at 1*s.* 8½*d.* per rupee			1,90,71,220
Balance or share of Government			Rs. 76,22,939
UNDER THE OLD AGREEMENT.			
Net traffic earnings			2,87,54,393
		2,87,54,393	
Guaranteed Interest, 1,498,000*l.*, at 1*s.* 10*d.* per rupee	1,63,41,818		
Interest on overdrawn Capital	1,36,816		
Contribution to Provident Fund	2,87,544		
		1,67,66,178	
Surplus profits		Rs. 1,19,88,215	
Moiety payable to Company		59,94,107	
Provident Fund		2,87,544	
Portion of Interest payable in India (say)		67,000	
Total payments made in India			63,48,651
			Rs. 2,24,05,742
Payments made in England,— Rs.			
Guaranteed Interest - - 1,498,000			
Less paid in India - - 6,200			
Rs. 1,491,800 at 1*s.* 8½*d.* per rupee			1,74,64,976
Balance or share of Government			Rs. 49,40,766
GAIN TO GOVERNMENT UNDER NEW AGREEMENT			Rs. 26,82,173

GUARANTEED INTEREST.—INDIAN RAILWAYS.

STATEMENT of the Total Amount of INTEREST advanced to each of the under-mentioned Railway Companies to 31st December 1880.

Railway Company.	Interest advanced to 31st December 1879.	Interest advanced during 1880.*			Total.
		England.	India.	Total.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Bombay, Baroda and Central India	6,269,707 16 8	400,316 19 8	198 0 3	400,514 19 11	6,670,222 16 7
Eastern Bengal	2,186,481 4 3	153,262 0 10	489 2 6	153,751 3 4	2,340,232 7 7
Great Indian Peninsula	18,103,952 0 3	1,140,591 15 11	4,618 5 0	1,145,210 0 11	19,249,162 1 2
Madras	8,935,095 4 3	523,993 16 11	—	523,993 16 11	9,459,089 1 2
Oudh and Rohilkund	2,329,948 10 3	279,005 15 0	994 5 0	280,000 0 0	2,609,948 10 3
Sind, Punjab and Delhi	8,037,954 6 8	552,476 0 0	1,172 19 11	553,648 19 11	8,591,603 6 7
South Indian	2,104,764 10 4	203,994 19 10	—	203,994 19 10	2,308,759 10 2
Totals	£47,967,903 12 8	3,253,641 8 2	7,472 12 8	3,261,114 0 10	51,229,017 13 6

* It will be observed that the Interest advanced *during* the year is here given, while the amount deducted from the net receipts to shew the surplus profits is that which is advanced for the year during which these receipts were realized. It is the practice to pay the guaranteed interest the day after the half year for which it is due has closed.

India Office, 24th May 1881. THOS. W. KEITH, Accountant General.

A STATEMENT shewing approximately the Amounts advanced on account of GUARANTEED INTEREST to the several under-mentioned Railway Companies to 30th June 1880, beyond the amount of Net Revenue applied thereto.

Railway Company.	Total Amount advanced to 31st December 1880.*	Aggregate of Net Revenue Balances for the several half years to 30th June 1880, inclusive.	Net Amount advanced.
	£	£	£
Bombay, Baroda and Central India	6,670,223	3,600,835	3,069,388
Eastern Bengal	2,340,232	1,958,733	381,499
Great Indian Peninsula	19,249,162	12,704,935	6,544,227
Madras	9,459,089	4,144,105	5,314,984
Oudh and Rohilkund	2,609,949	1,052,179	1,557,770
Sind, Punjab and Delhi	8,591,603	2,686,833	5,904,770
South Indian	2,308,760	917,940	1,390,820
Totals	£51,229,018	27,065,560	24,163,458

* The Interest for the half year to 30th June 1880 not being paid until the succeeding half year.

India Office, 24th May 1881. THOS. W. KEITH, Accountant General.

STATEMENT shewing the Amount of SURPLUS PROFITS earned by Guaranteed Railways to 31st December 1880 inclusive.

Railway Company.	To end of 1876.	Half year to 30th June 1877.	Half year to 31st Dec. 1877.	Half year to 30th June 1878.	Half year to 31st Dec. 1878.	Half year to 30th June 1879.	Half year to 31st Dec. 1879.	Half year to 30th June 1880.	Half year to 31st Dec. 1880.	Total.
	£	£	£	£	£	£	£	£	£	£
Bombay, Baroda and Central India	36,930	—*	—	—*	—	—*	—	—*	—	36,930
Eastern Bengal	60,719	13,908	99,602	26,158	64,981	317	63,257	—	100,572	429,514
Great Indian Peninsula	339,209	401,754	34,822	364,944	*	112,569	—	101,525	—	1,354,823
Totals	£436,858	415,662	134,424	391,102	64,981	112,886	63,257	101,525	100,572	1,821,267

* Surplus profits were earned by the Bombay, Baroda and Central India Railway Company during these half years, but no division took place, owing to the special agreement that all surplus profits should be applied to the construction of the Nerbudda Bridge.

India Office, 2nd June 1881. THOS. W. KEITH, Accountant General.

NET EARNINGS of the INDIAN RAILWAYS during 1880.

Railway.	Amount.	Per Train Mile.	Per-centage of Net Earnings to Gross Receipts.
	£	*s.*	
East Indian - - - - -	2,635,821‡	6·63	66·96
GUARANTEED.			
Bombay, Baroda and Central India -	434,010‡	6·32	57·43
Eastern Bengal* - - -	249,728‡	6·90	57·15
Great Indian Peninsula - -	1,018,009‡	3·46	44·47
Madras - - - -	179,404‡	1·92	31·76
Oudh and Rohilkund - - -	190,441‖	3·04	42·75
Sind, Punjab and Delhi* - -	501,495‡	3·59	47·53
South Indian - - - -	89,126§	1·84	26·13
Total and Averages for East Indian and Guaranteed Railways - -	5,298,034	4·54	53·76
STATE.	£		
Calcutta and South-Eastern - -	4,076‖	2·27	28·68
Cawnpore and Furrukabad† - -	*Loss 293*‖	*—1·72*	*—133·18*
Dhond and Manmad - - -	8,822‖	0·78	12·69
Holkar and Sindia-Neemuch - -	36,342‖	1·39	25·93
Indus Valley and Kandahar - -	193,426‖	2·25	29·90
Muttra-Hathras - - -	6,073‖	2·67	44·91
Nagpur and Chattisgarh† - -	2,127‖	1·08	20·46
Nalhati - - - -	*Loss 373*‖	*—0·17*	*— 5·33*
Northern Bengal - - -	59,491‖	2·27	41·05
Patna-Gya - - -	21,126‖	3·74	43·87
Punjab Northern - - -	56,417‖	1·17	16·75
Rajputana - - - -	123,331‖	1·72	33·12
Rajputana (Western) - - -	9,238‖	0·68	14·22
Rangoon and Irrawaddy Valley -	52,108‖	2·62	39·39
Sindia - - - - -	8,366‖	3·92	26·61
Tirhut - - - -	19,072‖	3·12	42·11
Wardha Coal - - - -	*Loss 13,248*‖	*—6·1*	*—61·70*
Total and Averages for State Railways - - - -	586,101	1·77	27·91
NATIVE STATES.			
Amraoti† - - - -	364‖	0·98	7·16
Khamgaon† - - - - -	493‖	1·69	18·01
Nizam's - - - -	22,430‖	1·94	31·92
Total and Averages for Native State Railways - - - -	23,287	1·78	29·81
Total and Averages for all Railways	5,907,422	3·91	49·003

* Includes the Flotilla.

† Open for a portion of the year only.

‡ Converted from rupees into sterling, so far as Indian expenditure is concerned, at 1*s.* 10*d.* the rupee.

§ Converted ditto, ditto, at 1*s.* 11*d.* the rupee.

‖ Converted ditto, ditto, at 2*s.* the rupee.

TRAFFIC AND WORKING.

59. The statistical tables which appear in the latter part of this Report furnish full particulars of the traffic and working of the various lines of railway now open. The general results show that the railways are more and more used for passengers and goods, and that they are yearly becoming more remunerative.

Passengers.

60. The total number of passenger tickets issued during the year 1880, allowing only one passenger for each season ticket, was 48,066,060, compared with 43,144,608 of 1879. The average number per mile open was 5,490 in 1880, 5,140 in 1879, and 4,754 in 1878. The merchandise carried amounted to 9,319,421 tons, compared with 7,896,766 in 1879, being at the rate of 1,064·8 per mile in 1880, compared with 1,049 in 1879 and 1,005 in 1878. The minerals carried in 1880 were 1,113,967 tons, and in 1879, 928,659 tons.

Merchandise.

Work done.

61. Taking the aggregate amount of work done on the several railways during the year as expressed by the number of passengers and the number of tons of merchandise carried one mile, the figures reached are 2,684,306,361 for passengers and 1,829,939,029 for goods. This is the first time that passenger traffic has been rendered in this shape. Comparing the traffic in goods with last year, the number of tons carried a mile is 97,391,844 more than last year.

Train Mileage.

62. In 1879 the passenger train mileage was 5,392,544. In 1880 it was 5,803,048. The goods train mileage was 13,546,878 in 1879 and 13,462,962 in 1880. It may be taken as an economical sign when the number of miles travelled by trains does not increase in the same proportion as the amount carried. It is, therefore, satisfactory to find that while the goods traffic increased the train mileage diminished.

Analysis of Passenger traffic.

63. Analysing the passenger traffic, it will be found that out of the 48,066,060 carried, 235,244, or ·489 per cent., were first class; 975,222, or 2·029 per cent., were second, and 46,830,474, or 97·482 per cent., were of the lower classes. These are very similar to the proportions of last year, when the percentages were ·519, 2·049, and 97·432 respectively. It may be computed on an average that each first-class passenger paid 13·24*s.*, and travelled a distance of about 78 miles; that each second class paid 5·12*s.*, and travelled about 61 miles, and each lower class paid 1·35*s.*, and travelled 40 miles.

Gross Receipts.

64. With regard to the gross receipts, the total amount received from passengers and goods from all the lines was 12,055,150*l.* in 1880, compared with 11,174,734*l.* of the previous year, being 1,365*l.* per mile open, compared with 1,351*l.* The gross receipts of the Guaranteed lines from passengers and goods in 1880, with an average number of 6,106 miles, were 9,854,693*l.*, and in 1879, with an average mileage of 6,036, 9,682,763*l.*, being an increase of 171,930*l.* and 1,630*l.* per mile in 1880, compared with 1,604*l.* in 1879. The State lines, including Native States, received in 1880 2,178,097*l.*, compared with 1,450,826*l.* in 1879, the mileage receipts being 2,648*l.*, compared with 2,235*l.*

65. The gross receipts from passenger traffic alone were 3,802,388*l.*, compared with 3,413,910*l.* of the previous year. Of this, 156,727*l.* was received from the first class, 250,171*l.* from the second class, and 2,868,809*l.* from the third and coolie class. The rest was made up from excess luggage, troop trains, and mail service. The receipts per train mile were 7·18*s.*, compared with 6·03*s.* of 1879. The train mile receipts from the Guaranteed lines were 7·08*s.*, from the State lines 7·72*s.*, and from Native State lines 5·37*s.*

66. The gross receipts from goods traffic, including minerals (492,700*l.*) and live stock (69,611*l.*), were 7,671,709*l.*, compared with 7,274,403*l.* of 1879. The receipts per train mile for goods were 8·74*s.*, being 9·34*s.* from the Guaranteed, 6·61*s.* from the State, and 7·01*s.* from the Native State lines. The principal increase was on the State lines (especially the Indus Valley and Punjab Northern), the additions from these railways being 727,271*l.*, and that from the Guaranteed lines only 171,930*l.* The receipts from the Indus Flotilla were 18,780*l.* less.

Expenditure.

67. With regard to expenditure, the total expenses for maintenance and working amounted to 6,164,277*l.*, compared with 5,774,510*l.* of the year 1879. The proportion per cent. of expenditure to gross receipts averaged on the whole system 51·13, against 52·31 of the previous year, and 4·05 against 4·04 per train mile. The cost of maintenance was 1,438,598*l.*, compared with 1,463,550*l.*; of working, 4,725,679*l.*, with 4,352,407*l.* The most economically worked line is the East Indian, the expenses of which are 33·04 per cent. of the gross receipts. The Bombay, Baroda and Central India and the Eastern Bengal come next, at 42·57 and 42·85. Then follow the Scinde, Punjab, and Delhi at 52·47, the Great Indian Peninsula at 55·5, and the Oudh and Rohilkund at 57·25. The Rangoon and Irrawaddy was 60·60, and the Rajputana 60·60.

68. The following table shows the cost on each line of performing similar work:—

Railway.	Working Expenses per Train Mile.	Cost of Maintenance.		Cost of Locomotive Power per Train Mile.	Average Cost of carrying		Average Profit on carrying	
		Per Train Mile.	Per Open Mile.		One Passenger One Mile.	One Ton One Mile.	One Passenger One Mile.	One Ton One Mile.
	s.	*d.*	£	*d.*	*d.*	*d.*	*d.*	*d.*
East Indian - - -	3·27	12·21	268	9·64	·13	·24	·24	·58
GUARANTEED.								
Bombay, Baroda and Central India - - -	4·68	12·14	156	22·31	·169	·4	·18	·73
Eastern Bengal - - -	5·18	12·91	212	14·16	·202	·448	·17	·85
Great Indian Peninsula -	4·31	12·93	246	18·27	·273	·542	·10	·59
Madras - - -	4·12	14·60	132	16·44	·206	·645	·07	·46
Oudh and Rohilkund - -	3·85	11·14	112	13·18	·141	·438	·182	·24
Sind, Punjab and Delhi -	3·97	8·83	163	17·02	·163	·56	·154	·70
South Indian - - -	3·89	10·14	84	18·94	·162	1·02	·142	—·04
STATE.								
Rajputana - - -	3·47	8·48	103	20·16	·184	·843	·086	·53

Rolling Stock.

69. The work has been performed during the year by 2,216 locomotives, being an addition of 270 to last year's stock, by 6,356 passenger carriages, and 40,090 goods trucks and wagons. Last year the number of carriages was 5,760, and of trucks and wagons 35,988.

Fuel.

70. The fuel used to provide the motive power consisted of 173,340 tons of English and 330,875 tons of Indian coal, at a cost of 704,463*l.*, of 7,077 tons of coke, which cost 1,760*l.* 15*s.*, of 8,383 tons of patent fuel at a cost of 16,812*l.*, and of 183,634 tons of wood at a cost of 110,056*l.* In the year 1879, a total quantity of 521,893 tons of coal, coke, and patent fuel were consumed, against 519,675 last year, and the amount of wood fuel last year was 183,634 tons, against 195,089 of the previous year. Thus, although more work was performed, less fuel was consumed. The proportion of Native coal to English in 1880 was 65·63 per cent. of the whole. In 1879 it was 70·78 per cent. The diminution last year was due to the failure of the supplies from the Warora works, which were stopped for some months in consequence of damage to the machinery. This has now been repaired, and hopes are entertained that there will be an abundant supply of coal. The average cost of Indian coal at the pit's mouth to the East Indian Railway is about 6*s.* The average cost of the same coal on the Punjab Northern line is 3*l.* 2*s.* 7*d.*, on the Rajputana 2*l.* 5*s.*, and on the Western Rajputana 3*l.* 4*s.* 10*d.* These last-mentioned lines will probably in future be more cheaply supplied with English coal *vid* Bombay. The average charge for freights from England to Bombay was last year about 24*s.*, being equivalent to the charge for carrying a ton of coal 600 miles by railway.

71. The following table gives the number of locomotives and vehicles employed in working the various lines:—

Railway.	Locomotives.				Vehicles.								
					Passenger Carriages.				Goods Trucks and Wagons.				
	Previous Number.	Alterations during the Year.		Total Number on 31st December 1880.	Previous Number.	Alterations during the Year.		Total.	Previous Number.	Alterations during the Year.		Total.	Total Number of Vehicles on 31st December 1880.
		Added.	Withdrawn.			Added.	Withdrawn.			Added.	Withdrawn.		
East Indian	545	—	14*	531	982	—	—	982	7,726	4	—	7,730	8,712
GUARANTEED.													
Bombay, Baroda and Central India	80	8	—	88	295	15	—	310	2,640	61	—	2,701	3,011
Eastern Bengal	48	—	—	48	176	16	—	192	966	—	—	966	1,158
Great Indian Peninsula	427	11	—	438	1,314	—	—	1,314	7,852	—	—	7,852	9,166
Madras	158	—	1	157	597	7	15	589	3,415	30	671	2,774	3,363
Oudh and Rohilkund	90	28	—	118	248	—	—	248	2,405	682	7	3,080	3,334
Sind, Punjab and Delhi	159	—	—	159	539	11	—	550	3,362	204	182	3,384	3,934
South Indian	118	—	10	108	431	54	26	459	1,578	77	105	1,550	2,009
Totals	1,625	47	25	1,647	4,582	103	41	4,644	29,944	1,058	959	30,043	34,687
STATE.													
Calcutta and South-Eastern	9	1	—	10	51	—	—	51	259	—	—	259	310
Cawnpore and Furrukabad	—	11	—	11	—	11	—	11	—	150	—	150	161
Dhond and Manmad	24	—	—	24	48	4	—	52	226	72	—	298	350
Holkar and Sindia-Neemuch	39	14	1	52	132	3	—	135	751	96	4	843	978
Indus Valley and Kandahar	64	46	12	98	226	39	12	253	1,507	342	9	1,840	2,093
Mutra-Hathras	5	—	—	5	25	7	—	32	61	15	1	75	107
Nagpur and Chattisgarh	—	12	—	12	—	19†	—	19†	—	356	—	356	375
Nalhati	6	—	—	6	11	—	—	11	23	1	—	24	35
Northern Bengal	33	7	—	40	84	17	—	101	776	61	—	837	938
Patna-Gya	4	6	4	6	16	15	—	31	72	34	5	101	132
Punjab Northern	23	41	—	64	81	60	—	141	456	766	—	1,222	1,363
Rajputana	136	6	—	142	347	159	—	506	1,832	495	—	2,327	2,833
Rajputana (Western)	25	10	—	35	18	44	—	62	257	217	—	474	536
Rangoon and Irrawaddy Valley	31	—	—	31	126	20	—	146	609	44	2	651	797
Sindia	5	—	—	5	6	22	—	28	34	5	4	35	63
Tirhut	10	—	—	10	57	3	—	60	232	32	12	252	312
Wardha Coal	5	—	—	5‡	9	—	—	9	66	95	—	161	170
Totals	419	154	17	556	1,237	423	12	1,648	7,161	2,781	37	9,905	11,553
NATIVE STATES.													
Amraoti	1	—	—	1	8	—	—	8	4	—	—	4	12
Khamgaon	2	—	—	2	8	—	—	8	4	—	—	4	12
Nizam's	9	1	—	10	32	16	—	48	91	43	—	134	182
Totals	12	1	—	13	48	16	—	64	99	43	—	142	206
Grand totals	2,056	202	42	2,216	5,867	542	53	6,356	37,204	3,882	996	40,090	46,446

* Condemned.

† Goods wagons and passenger brake vans temporarily fitted up for conveying passengers.

‡ Two engines used for shunting purposes only.

72. The table which follows gives full particulars in respect to the supply of fuel.

STATEMENT shewing the COST and CONSUMPTION of FUEL at the Point of Delivery on the respective Lines during the Year 1880.

Railway.	COAL.						COKE.						PATENT FUEL.						WOOD.					
	Quantity.		Total Cost.	Average Cost per Ton.	Consumption.		Quantity.	Total Cost.	Average Cost per Ton.	Consumption.			Quantity.	Total Cost.	Average Cost per Ton.	Consumption.			Quantity.	Total Cost.	Average Cost per Ton.	Consumption.		
	English.	Indian.			Per Train Mile.	Per Vehicle per Mile.				Per Train Mile.	Per Vehicle per Mile.					Per Train Mile.	Per Vehicle per Mile.					Per Train Mile.	Per Vehicle per Mile.	
	Tons.	Tons.	£ s. d.	£ s. d.	Lbs.	Lbs.	Tons.	£ s. d.	£ s. d.	Lbs.	Lbs.		Tons.	£ s. d.	£ s. d.	Lbs.	Lbs.		Tons.	£ s. d.	£ s. d.	Lbs.	Lbs.	
East Indian	—	167,884	83,067 12 7	0 9 11	49·33	—	7,041	1,676 15 7	0 4 9	—	—		—	—	—	—	—		32	10 13 3	0 6 8	—	—	
GUARANTEED.																								
Bombay, Baroda and Central India	30,412	—	50,208 4 11	1 13 0	49·60	1·74	—	—	—	—	—		—	—	—	—	—		455	225 0 8	0 9 10	0·74	0·03	
Eastern Bengal	—	15,004	13,388 3 1	0 17 10	49·76	5·28	—	—	—	—	—		—	—	—	—	—		73	47 3 7	0 12 10	0·39	0·10	
Great Indian Peninsula	83,542	31,251	176,304 9 0	1 10 9	43·70	2·05	—	—	—	—	—		—	—	—	—	—		2,090	1,001 0 0	0 9 7	0·79	0·04	
Madras	1,280	179	2,791 0 0	1 18 3	—	—	—	—	—	—	—		7,777	15,681 0 0	2 0 4	—	—		60,426	25,828 0 0	0 8 6	—	—	
Oudh and Rohilkund	—	23,222	33,150 10 0	1 8 6	39·28	1·61	—	—	—	—	—		—	—	—	—	—		360	182 9 0	0 10 1	0·60	0·02	
Sind, Punjab and Delhi	7,229	34,448	87,695 14 1	2 2 1	—	—	—	—	—	—	—		580	1,053 18 2	1 16 4	—	—		25,794	14,362 11 6	0 11 2	—	—	
South Indian	17,040	—	27,805 10 3	1 12 8	29·43	1·47	36	83 19 6	2 6 8	0·06	0·03		—	—	—	—	—		4,672	2,096 18 10	0 9 0	8·07	0·40	
Totals and averages, East Indian and Guaranteed Railways	139,503	271,988	474,410 14 11	1 3 1	43·51	2·43	7,077	1,760 15 1	0 4 11	0·06	0·03		8,357	16,734 18 2	2 0 0	—	—		93,902	43,753 16 10	0 9 3	2·10	0·12	
STATE.																								
Calcutta and South-Eastern	—	1,074	1,030 4 0	0 19 2	64·99	2·86	—	—	—	—	—		—	—	—	—	—		5	2 4 0	0 8 10	0·30	0·01	
Cawnpore and Furrukabad	—	60	93 0 0	1 11 0	39·35	3·33	—	—	—	—	—		—	—	—	—	—		—	—	—	—	—	
Dhond and Manmad	5,432	—	14,931 9 0	2 15 0	53·95	3·31	—	—	—	—	—		2	5 7 4	2 13 8	0·02	—		70	68 12 2	0 19 7	0·69	0·04	
Holkar and Sindia-Neemuch	21	—	64 2 2	2 18 9	—	—	—	—	—	—	—		—	—	—	—	—		16,350	13,630 9 11	0 16 8	—	—	
Indus Valley and Kandahar	21,273	—	63,913 0 3	3 0 1	27·66	1·39	—	—	—	—	—		2	4 6 7	2 3 3	0·003	—		24,827	25,426 10 4	1 0 5	32·28	1·52	
Muttra and Hathras	—	693	1,432 7 4	2 1 7	34·08	2·45	—	—	—	—	—		—	—	—	—	—		16	13 19 2	0 16 10	0·82	0·06	
Nagpur and Chattisgurh	45	964	969 2 3	0 19 3	57·56	3·76	—	—	—	—	—		—	—	—	—	—		286	256 13 4	0 18 0	16·31	1·06	
Nalhati	—	569	497 13 6	0 17 6	29·72	2·85	—	—	—	—	—		—	—	—	—	—		2	1 17 4	0 18 8	0·13	0·01	
Northern Bengal	—	8,044	10,899 18 0	1 7 1	33·34	1·56	—	—	—	—	—		22	67 8 0	3 1 3	0·09	—		6	3 18 0	0 13 0	0·02	0·001	
Patna-Gya	—	2,533	3,324 17 2	1 5 9	51·17	2·73	—	—	—	—	—		—	—	—	—	—		10	4 5 6	0 8 6	0·20	0·01	
Punjab Northern	—	17,993	56,276 2 10	3 2 7	41·94	1·56	—	—	—	—	—		—	—	—	—	—		7,895	7,484 4 8	0 19 0	18·40	0·69	
Rajputana	—	22,558	50,717 15 7	2 4 11	35·25	1·85	—	—	—	—	—		—	—	—	—	—		—	—	—	—	—	
Rajputana (Western)	3,974	—	12,586 4 7	3 4 10	32·58	5·39	—	—	—	—	—		—	—	—	—	—		—	—	—	—	—	
Rangoon and Irrawaddy Valley	1,310	—	2,574 12 8	1 19 4	7·37	0·32	—	—	—	—	—		—	—	—	—	—		6,534	3,035 19 0	0 9 4	36·76	1·61	
Sindia*	—	616	1,818 7 3	2 2 9	36·18	4·69	—	—	—	—	—		—	—	—	—	—		—	—	—	—	—	
Tirhut	—	1,604	2,090 5 3	1 6 1	29·38	1·56	—	—	—	—	—		—	—	—	—	—		63	31 15 6	0 10 1	1·15	0·06	
Wardha Coal	126	1,779	930 7 1	0 13 11	73·09	4·19	—	—	—	—	—		—	—	—	—	—		3	1 6 6	0 8 10	0·15	0·01	
NATIVE STATES.																								
Amraoti	102	178	573 3 6	2 0 10	84·45	7·03	—	—	—	—	—		—	—	—	—	—		15	20 4 6	1 6 6	4·59	0·38	
Khamgaon	5	172	288 1 6	1 12 6	67·99	6·80	—	—	—	—	—		—	—	—	—	—		9	7 14 6	0 17 2	3·41	0·34	
Nizam's	1,548	—	5,191 12 0	3 7 0	13·99	—	—	—	—	—	—		—	—	—	—	—		8,068	4,499 6 0	0 11 1	72·93	—	
Totals and averages, State Railways	33,837	58,887	230,032 5 11	2 9 7	42·84	3·19	—	—	—	—	—		26	77 1 11	2 19 8	0·037	—		64,159	54,468 19 11	0 16 11	12·54	0·41	
Indus Steam Flotilla	—	—	—	—	—	—	—	—	—	—	—		—	—	—	—	—		25,573	11,813 13 0	0 9 2	—	—	
Totals and averages, all Railways and Flotilla	173,340	330,875	704,463 0 10	1 7 11	43·01	3·03	7,077	1,760 15 1	0 4 11	0·06	0·03		8,383	16,812 0 1	2 0 1	0·037	—		183,634	110,056 9 9	0 11 11	9·93	0·33	

* Southern Section only, the Northern Section being worked at a mileage rate.

Working of State branch lines by the Guaranteed Railway Companies.

73. In the year 1879 an Act was passed in this country to remove from the Guaranteed Railway Companies their disability to work lines other than their own, and the question of placing certain State lines, which form branches to those undertakings, is now receiving the consideration of the Government of India.

State management of certain lines.

74. The separate systems of State lines, which, from their size and position, require separate administrations, are being managed by officers under the supervision of Government. The lines through Rajputana and Malwa, 717 miles in length, and extended from Agra to Delhi, south, till they join the Bombay and Baroda Railway at Ahmedabad and the Great Indian Peninsula at Khundwa, form one system, and are under the direction of Major W. S. S. Bisset, R.E. The Northern Bengal Railway, of 230 miles, is managed by Major W. A. Wallace, R.E., and the Rangoon and Irrawaddy line, 161, is in the hands of Mr. H. M. Matthews, C.E. The affairs of all these railways are being conducted with much vigour and skill, and the results already attained are satisfactory in themselves, and furnish ground for expecting success hereafter.

Services in connection with war operations.

75. On the Frontier lines, and on those immediately leading to them, the work of carrying on the traffic during the operations in connection with the campaigns in Afghanistan was very arduous, and was so well performed as to call forth the following acknowledgment from the Government of India:—

"The thanks of the Government of India should be conveyed to the following officers, as well as to their assistants, and to the men engaged on the Sind, Punjab and Delhi, the Indus Valley, including the portion of the Kandahar extension in use, and Punjab Northern Railways, for their arduous exertions in the transport of troops and war material by rail during the late campaigns in Afghanistan:—

"Colonel Medley, the Consulting Engineer; Major Doveton, R.E., the Deputy Consulting Engineer; Mr. Bocquet, C.I.E., the Agent of the Sind, Punjab and Delhi Railway Company; Captains Savi and Sedgwick, the Managers of the State Railways; Mr. Ross, Mr. Tavernor, Mr. Mathew, and Mr. Keene, Traffic Managers; Mr. Sandiford, Mr. Bocquet, junior, Mr. Thomas, and Mr. Thomson, Locomotive Superintendents; Mr. Stone, Mr. Cox, Mr. Mallet, Mr. Storey, and Mr. Brereton, Engineers.

"A gratuity of one month's pay of permanent present grade will be given to those members of the Locomotive and Traffic Departments of State Railways who have had heavy additional work to perform, and who have not already been paid for their extra duties by overtime allowances. A similar gratuity, limited in the same manner, to members of these Departments in the service of the Sind, Punjab and Delhi Railway will be sanctioned, if approved by the Board of Directors."

76. The services of those who conducted the traffic arrangements in connection with the return of the troops from Kandahar and Southern Afghanistan have also been highly commended by the Government on account of the skill and energy shown by them on the occasion. The principal officers concerned were Colonel Medley, R.E., Mr. G. F. Mathew, Traffic Superintendent, and Captain M. C. Brackenbury, R.E.

FARES and RATES in use on the INDIAN RAILWAYS during 1880.

Railway.	Passengers. Fare for travelling One Mile. First Class.	Second Class.	Intermediate Class.	Third Class.	Fourth or Coolie Class.	Goods. Rate for conveying One Ton One Mile. First or Lowest Class.	Second Class.	Third Class.	Fourth Class.	Fifth or Highest Class.	Special.
East Indian	pies.* 18	pies. 9	pies. 4·5	pies. 3	pies. —	pies. 9·073	pies. 13·61	pies. 18·146	pies. 22·685	pies. 27·221	pies. From 2·722 to 9·073.
GUARANTEED.											
Bombay, Baroda and Central India.	12	6	—	Mail 3 / Ordinary 2·5	—	10·98	15·12	21·17	30·24	42·34	Up to 8·06.
Eastern Bengal	12	6	—	4·5	3	8·95	17·27	24·61	—	—	From 7·97 to 10·29.
Great Indian Peninsula.	18	9	—	4	2·5	10	14	24	34	48	From 5·5 to 8.
Madras — Single	18	7	—	2	—	10	14	18	24	36	From 4 to 8.
Madras — Return	27	10·5	—	—	—						
Oudh and Rohilkund	Upper 9	Upper Reserved Cmptmnt. 36	Lower 2·5	Lower Reserved 3	Lower Reserved Cmptmnt. 20 & 24	Low 6·80	—	Middle 13·61	—	High 27·22	From 4·53 to 5·44.
Sind, Punjab and Delhi.	12	8	4·5	2·25 to 3	—	9·073	13·610	18·146	22·683	27·22	6·805.
South Indian	18	6	—	2 and 3	—	12	—	—	24	54	From 4 to 8.
STATE.											
Calcutta and South-Eastern.	18	9	—	3	1·96	9·07	18·14	27·22	—	—	8·49.
Cawnpore and Furrukabad.	15	6	—	2	—	9·073	13·610	18·146	22·683	27·22	—
Dhond and Manmad	18	9	—	2·5	—	10	14	24	34	48	From 5 to 8.
Holkar and Sindia—Neemuch.	16·48	8·24	—	2·75	2·06	12·46	18·69	24·92	—	—	From 7·78 to 9·34.
Holkar and Sindia—Neemuch. †	*12 annas*	*6 annas*	—	*2 annas*	*1 a. 6 p.*	*108·88*	*163·32*	*217·76*	—	—	*From 68·05 to 81·66.*
Indus Valley and Kandahar.	12	8	—	2·25 & 2·5	—	9·07	13·6	18·13	22·67	27·2	From 5 to 6·8.
Muttra-Hathras	Upper 13·42	—	5·46	Lower 2·97	—	7·51	15·02	30·04	—	—	—
Nagpur and Chattisgarh.	18	9	—	—	2·5	10	14	24	34	48	From 6 to 8.
Nalhati	18·41	9·23	—	3·07	—	13·14	20·83	28·05	43·45	80·68	11·05.
Northern Bengal	18	9	4·5	2·5	—	9·07	18·14	27·22	—	—	From 5·44 to 13·61.
Patna-Gya	17·96	9·02	—	3	—	8·44	13·90	18·36	23·22	29·34	—
Punjab Northern	13·68	7·60	—	Mail 2·45 / Ordinary 1·80	—	9	14	18	23	27	7.
Rajputana	10·83	4·42	—	2·02	—	12·40	19·32	26·17	—	—	From 9·73 to 9·89.
Rajputana (Western)	11·97	6·24	—	2·27	—	13·25	20·12	26·75	—	—	16·44.
Rangoon and Irrawaddy Valley.	14·90	7·45	—	2·98	—	12·40	17·32	22·17	—	—	8·84.
Sindia: Northern Section	18	9	4·5	3	—	9·073	13·61	18·146	22·685	27·221	From 2·722 to 9·073.
Sindia: Southern Section	22·95	8·82	—	3·02	—						
Tirhut	16·02	9·55	—	2·40	—	14·75	22·25	28·51	—	—	From 8·45 to 10·88.
Wardha Coal	18	9	—	4	2·5	10	13·5	24	34	48	From 6 to 8.
NATIVE STATES.											
Amraoti	18	9	—	4	2·5	10	14	24	34	48	From 5 to 8.
Khamgaon	18	9	—	4	2·5	10	14	24	34	48	From 5 to 8.
Nizam's	18	6	—	2	—	12	18	24	36	54	From 6 to 10.

* 8 pies is about equivalent to 1*d*.

† Station to station rates (*shewn in italics*) are equal to about 12 miles of mileage rate.

77. The table giving the quantities of the various commodities conveyed by the Railways shows that there has been an increase of 210,656 tons in coal, of 53,785 in cotton, 8,978 in hides, 111,886 in seeds, 14,698 in jagree and sugar, 148,783 in rice, 76,438 in salt, 26,802 in piece goods, and 18,445 in tobacco; while there has been a decrease of 182,100 tons in grain and of 17,434 in jute.

Returns prepared by Mr. Rendel for the year 1880.

78. These returns are made up on the same principles as those of previous years, but the data on this occasion are taken as a rule from the tables which will be found in this Report, and not from the half-yearly reports of the various Companies.

(*a*) Passenger Traffic.

	East Indian, Main and Jabalpur Lines together.	Great Indian Peninsula.	Madras.	Bombay, Baroda and Central India.	Sind, Punjab, and Delhi.	Eastern Bengal.	Oudh and Rohilkund.	South Indian (Narrow Gauge).	Rajputana (State Line) (Narrow Gauge).	All together.
Average length open, miles	Miles. 1,504¾	Miles. 1,276½	Miles. 860¼	Miles. 444	Miles. 663¼	Miles. 171¾	Miles. 546¾	Miles. 639	Miles. 474	Miles. 6,580¼
(1.) Receipts from passenger traffic.	£ 1,070,049	£ 562,000	£ 233,369	£ 247,548	£ 401,852	£ 136,284	£ 191,316	£ 197,657	£ 106,688	£ 3,146,743
(2.) Passenger train miles run	No. 2,551,999	No. 1,936,963	No. 940,346	No. 566,475	No. 1,209,719	No. 304,278	No. 505,990	No. 596,479	No. 467,996	No. 9,049,195
(3.) Average passenger train mile receipts.	s. 8.38	s. 5·65	s. 4·96	s. 8·74	s. 6·64	s. 8·96	s. 7·56	s. 7·8	s. 4·56	s. 6·95
(4.) Number of passengers carried one mile.	No. 887,892,441	No. 364,948,214	No. 207,626,468	No. 170,412,463	No. 314,648,496	No. 88,800,000	No. 141,985,955	No. 155,778,079	No. 98,449,919	No. 2,230,401,927
(5.) Average sum received for carrying a passenger one mile.	d. ·374	d. ·37	d. ·27	d. ·349	d. ·317	d. ·37	d. ·323	d. ·304	d. ·26	d. ·338
(6.) Average number of passengers in a train at any one time.	No. 270	No. 183	No. 221	No. 301	No. 260	No. 290	No. 280	No. 307	No. 232	No. 246
(7.) Average number of passenger trains per diem each way, supposing each train to traverse the whole line open.	No. 2·326	No. 2·15	No. 1·5	No. 1·75	No. 2·49	No. 2·42	No. 1·27	No. 1·085	No. 1·35	No. 1·9
(8.) Average number of passengers passing over each mile of line daily (both ways).	No. 1,247	No. 783	No. 661	No. 1,052	No. 1,298	No. 1,414	No. 712	No. 664	No. 576	No. 929
(9.) Total working expenses for both goods and passengers, deducting miscellaneous receipts from them.	£ 1,168,910	£ 1,222,787	£ 353,252	£ 287,545	£ 489,010	£ 165,092	£ 222,542	£ 247,097	£ 240,342	£ 4,398,487
(10.) Average cost of running a train mile, passenger and goods miles assumed to cost the same.	s. 2·94	s. 4·156	s. 3·792	s. 4·24	s. 3·54	s. 4·88	s. 3·236	s. 4·15	s. 3·55	s. 3·62
(11.) Average cost of carrying a passenger one mile.	d. ·13	d. ·273	d. ·206	d. ·169	d. ·163	d. ·202	d. ·151	d. ·162	d. ·194	d. ·176

(*b*) Goods Traffic.

Average length open, miles	Miles. 1,504¾	Miles. 1,276½	Miles. 860¼	Miles. 444	Miles. 663¼	Miles. 171¾	Miles. 546¾	Miles. 639	Miles. 474	Miles. 6,580¼
(1.) Receipts from goods traffic	£ 2,734,682	£ 1,678,796	£ 361,287	£ 474,006	£ 617,367	£ 261,897	£ 221,667	£ 138,567	£ 256,985	£ 6,685,194
(2.) Goods train miles run	No. 5,392,521	No. 3,887,533	No. 932,993	No. 790,894	No. 1,556,142	No. 371,058	No. 748,455	No. 683,539	No. 887,527	No. 15,250,662
(3.) Average goods train mile receipts.	s. 10·14	s. 8·64	s. 6·45	s. 11·99	s. 7·93	s. 14·12	s. 5·92	s. 4·05	s. 5·79	s. 8·767
(4.) Tons of goods carried one mile.	Tons. 798,573,400	Tons. 357,792,361	Tons. 65,790,535	Tons. 100,662,892	Tons. 117,670,702	Tons. 48,751,332	Tons. 67,653,941	Tons. 33,657,752	Tons. 44,887,289	Tons. 1,635,440,204
(5.) Average sum received for carrying one ton one mile.	d. ·822	d. 1·13	d. 1·1	d. 1·13	d. 1·26	d. 1·29	d. ·786	d. ·988	d. 1·37	d. ·98
(6.) Average number of tons in a goods train at one time.	Tons. 148	Tons. 92	Tons. 70·5	Tons. 127	Tons. 76	Tons. 131	Tons. 90	Tons. 49	Tons. 50·5	Tons. 107
(7.) Average number of goods trains per diem each way, supposing each train to run over the whole line open.	No. 4·9	No. 4·17	No. 1·486	No. 2·44	No. 3·23	No. 2·95	No. 1·87	No. 1·46	No. 2·56	No. 3·17
(8.) Average number of tons of goods passing over each mile of line daily (both ways).	Tons. 1,455	Tons. 770	Tons 209	Tons. 620	Tons. 485	Tons. 776	Tons. 339	Tons. 144	Tons. 260	Tons. 680
(9.) Total working expenses for both goods and passengers, deducting from them miscellaneous receipts, and demurrage on goods.	£ 1,168,910	£ 1,222,787	£ 355,252	£ 287,545	£ 489,010	£ 165,092	£ 222,542	£ 247,097	£ 240,342	£ 4,398,487
(10.) Average cost per train mile, goods and passenger miles assumed to cost the same.	s. 2·94	s. 4·156	s. 3·792	s. 4·24	s. 3·54	s. 4·88	s. 3·236	s. 4·15	s. 3·55	s. 3·62
(11.) Average cost of carrying a ton of goods one mile.	d. ·24	d. ·542	d. ·645	d. ·4	d. ·56	d. ·448	d. ·438	d. 1·02	d. ·843	d. ·406

79. It will be noticed that,—

The lowest and the highest working cost per train mile are to be found, as last year, on the East Indian and the Eastern Bengal, the cost on the former being 2·94*s.*, on the latter 4·88*s.*

The lowest cost per passenger per mile is found on the East Indian, ·13*d.*; the highest on the Great Indian Peninsula, ·273*d.*

The lowest cost per ton of goods per mile is also found on the East Indian, ·24*d.*; the highest on the Rajputana, 1·02*d.*

The lowest charges per passenger per mile are found on the Rajputana and Madras, ·26*d.* and ·27*d.* respectively; the highest on the East Indian, Great Indian Peninsula, and Eastern Bengal, ·374*d.*, ·37*d.*, and ·37*d.*

The lowest charges per ton of goods per mile are found on the Oudh and Rohilkund and East Indian, ·786*d.* and ·822*d.*; the highest is on the Rajputana, 1·37*d.*

The best passenger train load is found on the South Indian (narrow gauge) line, 307 persons; the worst on the Great Indian Peninsula (broad gauge), 183.

The best goods train load is found on the East Indian, 148 tons; the worst on the South Indian, 49 tons.

80. Taking the whole 6,580 miles included in these returns, we find that the expenditure per train mile averages 3*s.* 7½*d.*; that the charge per passenger per mile averages ⅓rd of a penny, and the cost rather more than ⅙th of a penny; that the charge for goods per ton per mile averages rather less than 1*d.*, and the cost $\frac{4}{10}$ths of a penny; that the loads of the passenger trains average 246 persons, and of the goods trains 107 tons; and that the traffic passing over every mile of line every day averages 929 persons and 680 tons of goods, carried on the average in 1·9 passenger and 3·17 goods trains running over the whole of each line upwards, and the same number of trains running over the whole of each line downwards, making 3·8 passenger and 6·34 goods trains in all daily. The train mileage includes all return or other empty trains, carriages, and wagons.

STATEMENT shewing the QUANTITIES of the principal Articles of MERCHANDISE, &c., carried on the EAST INDIAN and GUARANTEED RAILWAYS in 1879 and 1880.

Articles.	East Indian.		Bombay, Baroda and Central India.		Eastern Bengal.		Great Indian Peninsula.		Madras.		Oudh and Rohilkund.		Sind, Punjab, and Delhi.		South Indian.	
	1879.	1880.	1879.	1880.	1879.	1880.	1879.	1880.	1879.	1880.	1879.	1880.	1879.	1880.	1879.	1880.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Cloth	Included in "Piece Goods."		Included in "Piece Goods."		—	—	—	—	5,183	5,523	—	—	—	—	3,995	5,861
Coal	748,618	910,061	2,067	7,656	19,959	16,908	16,612	21,705	422	682	489	1,545	19,886	50,396	—	—
Cocoa-nuts	Included in "Dried Fruits."		7,749	8,510	—	—	12,320	15,139	3,706	4,195	45	175	1,586	2,650	—	—
Coffee	—	—	—	—	—	—	610	588	6,264	5,797	—	—	57	44	—	—
							Includes Tea.									
Coke	38,334	34,269	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cotton	51,167	63,428	20,513	55,482	796	711	95,531	99,783	16,176	15,762	6,485	8,704	11,309	12,873	3,794	5,339
Dried Fruits	4,984	8,484	6,643	5,864	—	—	19,951	18,540	—	—	—	—	8,555	7,841	—	—
	Includes Cocoa-nuts.															
Firewood	9,817	10,252	11,428	14,744	—	—	35,768	50,052	13,735	13,202	6,719	8,512	19,609	32,617	—	—
Grain	340,613	281,937	126,720	110,633	11,765	20,987	426,385	357,647	124,672	65,814	217,212	191,197	199,627	177,412	114,515	98,736
Green Fruits and Vegetables	—	—	10,739	8,661	—	—	16,689	13,807	7,968	7,291	3,842	4,778	3,914	4,819	6,453	7,260
Gunny Bags	24,843	24,532	2,910	4,730	5,444	6,598	8,752	9,060	4,264	3,813	5,323	6,350	7,255	6,721	—	—
Hides	34,056	35,045	1,482	1,141	6,227	4,872	7,723	9,147	10,996	12,903	4,933	5,790	7,381	7,292	1,933	3,206
Iron	81,866	51,922	Included in "Metal and Hardware."		—	—	—	—	6,805	13,540	4,277	6,006	18,202	15,116	—	—
Jagree and Sugar	110,129	105,853	34,604	31,568	8,150	9,624	44,293	37,039	14,427	14,131	78,309	62,654	65,770	84,308	—	14,570
	Includes Molasses.															
Jute	2,096	1,554	—	—	160,814	144,816	159	764	—	—	363	151	6	2	—	—
	Includes Hemp & Flax															
Metal and Hardware	—	—	6,026	7,507	1,451	1,457	19,481	20,443	—	—	1,209	1,524	3,409	3,717	—	—
Military Stores	19,351	14,233	1,320	1,223	901	1,850	8,286	8,529	2,461	3,290	3,265	3,276	43,642	36,922	—	—
Oil	4,969	4,464	2,871	3,159	—	—	8,219	11,813	6,709	6,345	717	923	2,643	3,048	6,388	5,825
															Includes Ghee.	
Opium	6,931	10,077	430	850	25	22	4,043	2,785	—	—	1,109	995	82	35	—	—
Piece Goods	65,324	71,017	6,750	8,773	14,760	17,151	26,140	29,317	58	662	5,860	6,190	16,637	20,885	—	—
	Includes "Cloth."															
Pulses	99,210	84,661	—	—	—	—	—	—	—	—	—	—	—	—	Curry Stuffs.	
Rice	182,393	188,124	Included in "Grain."		30,479	70,099	—	—	62,365	44,770	37,758	64,555	16,413	35,126	10,000	11,235
Salt	194,260	210,102	66,578	75,149	34,276	33,045	105,659	107,872	48,018	51,195	51,374	54,024	37,091	39,233	Included in "Grain."	
Saltpetre	26,506	21,909	—	—	—	—	—	—	—	—	—	—	—	—	18,428	18,195
Seeds	248,996	285,345	19,195	24,876	11,815	29,922	88,080	140,473	23,310	19,958	28,282	34,246	63,033	36,320	15,062	19,579
Silk	787	729	Included in "Piece Goods."		66	93	405	561	—	—	19	25	151	227	—	—
Tea	1,652	1,578	—	39	4,457	7,070	—	—	101	264	220	296	1,601	2,007	—	1
Timber	23,573	19,420	16,897	18,125	—	—	8,053	8,614	11,131	11,528	10,623	13,048	18,265	14,378	—	—
Tobacco	14,389	16,046	12,770	13,040	8,988	10,919	6,436	6,949	6,346	6,715	1,049	1,132	1,672	2,139	1,797	2,579
Turmeric	4,237	4,666	—	—	3,543	1,538	—	—	—	—	1,517	1,912	1,452	1,585	—	—
															Stone for Madras Harbour.	
Twist	5,177	5,389	1,986	2,403	—	—	5,583	6,863	4,496	4,884	1,132	1,243	2,381	2,989	183,166	287,379
Wines, Spirits, &c.	6,136	6,809	708	594	686	803	2,687	2,500	3,101	3,206	2,239	2,769	2,984	8,678	—	—
															Areca Nuts.	
Wool	—	—	1,727	2,994	—	—	488	1,347	—	—	91	200	8,627	8,383	3,536	4,640

STATEMENT shewing the QUANTITIES of the principal Articles of MERCHANDISE, &c., carried on INDIAN STATE RAILWAYS in 1879 and 1880.

Articles.	Calcutta and South-Eastern.		Cawnpore and Farukhabad.		Dhond and Manmad.		Holkar and Sindia-Neemuch.		Indus Valley and Kandahar.		Muttra-Hathras.		Nagpur and Chattisgarh.		Nalhati.		Northern Bengal.		Patna-Gya.	
	1879.	1880.	1879.	1880.	1879.	1880.	1879.	1880.	1879.	1880.	1879.	1880.	1879.	1880.	1879.	1880.	1879.	1880.	1879.	1880.
	Tons.	Tons.		Tons.	Tons.	Tons.	Tons.	Tons.	Tons	Tons.	Tons.	Tons.		Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Cloth	5	—		—	60	163	253	912	Books&Stationery. 237	345	—	—		—	—	—	33	—	—	—
Coal	122	304		—	2,353	1,510	109	514	83	5,060	—	—		380	1,638	2,429	3,371	2,062	383	1,966
Cocoa-nuts	—	—		—	312	416	2,501	3,086	Building Materials. 1,651	12,155	—	—		273	—	—	—	—	—	—
Coffee	—	—		—	—	—	—	—	Spices. 544	637	—	—		—	—	—	—	—	—	—
Cotton	—	—		7	4,140	4,572	2,330	3,000	665	1,500	1,241	1,851		26	170	227	10	—	153	452
Dried Fruits	—	—		—	689	406	1,551	1,343	2,473	4,252	332	342		189	87	104	—	—	75	158
Firewood	17,250	20,552		—	32	819	14,289	4,872	Drugs & Medicines. 388	568	—	—		—	—	—	—	—	—	—
Grain	1,512	904		4	26,919	29,232	26,299	32,526	37,427	40,764	12,078	18,487		1,607	864	501	9,438	14,594	2,834	4,570
Green Fruits and Vegetables	—	—		—	294	591	263	437	1,462	1,349	33	—	Railway Materials. —	94,550	167	225	67	—	—	268
Gunny Bags	74	—		—	470	681	228	812	958	2,045	437	—		—	114	68	1,805	—	112	325
Hides	—	—		1	960	3,757	396	482	1,596	1,450	106	70		—	23	51	148	—	299	491
Iron	45	—		—	567	487	2,077	1,908	—	696	—	—		—	—	—	—	—	70	234
Jagree and Sugar	12	—		—	1,185	1,804	10,803	12,496	8,118	15,190	5,239	3,573		154	277	322	—	—	1,121	4,146
Jute	11	—		—	30	69	369	155	535	520	60	443		—	92	85	21,292	20,063	—	7
Metal and Hardware	11	—		—	343	445	1,229	1,005	2,005	1,728	420	514		165	353	213	4,457	—	88	240
Military Stores	—	—		—	242	751	645	1,711	13,180	39,577	—	1		182	—	—	255	—	—	—
Oil	4	—		—	457	2,441	1,905	710	722	1,488	254	115		35	28	23	315	—	20	65
Opium	—	—		—	1	44	4,112	3,160	Furniture. 273	518	—	—		1	3	1	14	—	303	454
Piece Goods	—	—		—	693	980	4,612	5,007	7,499	9,255	499	608		286	854	1,290	5,449	4,857	417	1,128
Rice	4,388	4,505		—	2,061	2,885	3,405	3,078	—	14,015	—	—		1,544	6,235	1,894	15,664	24,560	5,346	9,036
Salt	—	—		—	4,069	4,354	6,953	8,322	822	2,196	1,585	520		1,209	786	591	5,476	11,478	2,693	5,444
Seeds	5	—		3	692	1,308	3,832	5,212	11,743	6,778	4,841	1,396		153	988	427	861	—	1,365	6,981
Silk	—	—		—	41	167	5	10	—	16	—	12		—	383	314	—	—	—	—
Tea	—	—		—	—	—	8	5	533	1,430	Wood. 524	222		—	—	1	882	3,988	—	—
Timber	Hay. —	3,126		—	242	401	2,025	1,695	1,932	28,487	8	—		287	9	11	492	—	217	476
Tobacco	—	—		1	94	290	2,639	3,719	632	862	45	56		51	30	55	3,178	10,545	517	1,157
Turmeric	Straw. —	567		—	410	954	Railway Materials. 10,802	27,065	Miscellaneous. 9,049	24,267	227	—		—	47	22	—	—	—	—
Twist	Wooloo Grass. —	657		—	502	725	347	311	Railway Material. 125,269	278,621	—	—		—	—	—	—	—	—	—
Wines, Spirits, &c.	—	—		—	90	73	266	197	1,617	2,300	89	29		34	41	39	481	—	21	66
Wool	—	—	Railway Materials. —	14	32	97	—	18	3,119	6,296	80	65		—	—	—	Miscellaneous. 14,740	31,004	—	—
					Railway Materials. 2,932	7,405			Dyes & Colours. 1,042	1,572										

Not opened.

Not opened.

STATEMENT shewing the QUANTITIES of the principal Articles of MERCHANDISE, &c., carried on INDIAN STATE RAILWAYS in 1879 and 1880—*cont.*

Articles.	Punjab Northern.		Rajputana.		Rajputana (Western).		Rangoon and Irrawaddy Valley.		Sindia, Northern Section.		Sindia, Southern Section.		Tirhut.		Wardha Coal.		Native States.					
																	Amraoti.		Khamgaon.		Nizam's.	
	1879.	1880.	1879.	1880.	1879.*	1880.	1879.	1880.	1879.	1880.	1879.	1880.	1879.	1880.	1879.	1880.	1879.	1880.	1879.	1880.	1879.	1880.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.		Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Cloth	1,114	1,415	—	—	—	—	—	—	*See* Piece Goods.			—	—	—	—	—	120	129	6	2	—	—
Coal	51	118	396	619	—	111	5	—	886	1,534		698	1,602	3,569	25,967	17,683	651	20	284	—	52	132
Cocoa-nuts	—	—	—	—	—	—	157	413	*See* Dried Fruits.			—	—	—	—	—	975	759	79	74	204	222
Coffee	—	—	—	—	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—	—
Cotton	158	624	3,731	7,328	22	268	5	9	22	32		4	501	486	1,176	1,712	10,737	8,682	11,899	8,221	250	313
Dried Fruits	2,406	3,247	2,604	1,990	356	2,479	—	—	Includes Cocoa-nuts. 114	475		238	151	144	214	334	2,008	404	225	83	1,317	408
Firewood	336	538	—	—	—	—	9	45	—	3		—	—	—	—	—	35	114	151	19	12,228	6,638
Grain	96,980	134,640	57,803	41,942	452	27,511	392	632	1,323	1,212		285	2,393	8,021	7,352	3,352	4,590	1,961	3,068	1,506	15,006	17,625
Green Fruits and Vegetables	878	1,751	—	—	Railway Materials. 2,164	13,516	1,395	2,798	Pulses. 1	106		—	—	665	83	—	78	399	22	15	744	471
Gunny Bags	1,612	1,668	2,397	2,880	25	709	37	906	23	39		29	711	832	—	—	344	274	259	134	58	390
Hides	1,360	2,584	811	929	23	221	59	79	34	40		31	2,244	2,818	—	—	116	133	14	7	1,157	915
Iron	3,338	5,363	—	—	—	—	249	506	—	3,147		—	501	874	—	—	676	332	493	194	—	—
Jagree and Sugar	11,876	15,821	37,946	37,775	702	5,781	727	986	664	759		424	235	551	147	146	779	610	448	176	1,361	1,562
Jute	45	159	288	—	—	—	—	—	19	9		—	14	29	—	—	101	30	4	9	34	33
Metal and Hardware	445	765	18,815	6,085	263	2,168	169	69	1,702	—		260	524	808	383	224	175	82	14	9	2,095	1,665
Military Stores	3,624	2,806	367	143	28	443	7	9	887	782		252	—	—	—	—	10	25	—	—	581	1,447
Oil	665	1,012	1,042	1,360	38	411	978	1,208	29	79		77	106	137	46	45	358	389	90	114	900	640
Opium	—	—	—	76	—	18	—	—	2	—		—	—	—	—	—	36	4	12	7	—	—
Piece Goods	2,962	4,804	3,239	3,913	202	1,786	447	346	Includes Cloth. 221	411		285	4,105	4,147	288	337	721	522	135	246	1,630	2,096
Rice	4,757	11,038	—	—	—	—	28,678	71,439	—	237		—	7,659	9,920	527	159	1,620	1,514	554	527	—	—
Salt	29,182	35,733	121,363	140,704	230	2,459	655	761	682	277		32	6,899	10,872	4,298	4,374	3,301	2,446	2,015	2,732	14,998	14,810
Seeds	1,819	2,966	3,646	3,059	351	2,588	273	95	129	167		76	3,478	12,155	5,168	10,492	1,033	934	778	755	2,317	3,714
Silk	54	64	—	8	—	1	26	55	Coke.	27		1	—	—	—	—	6	18	—	2	—	—
Tea	900	875	—	11	5	11	19	46	1	26		15	—	—	—	—	—	—	—	—	—	—
Timber	12,369	7,649	3,606	6,292	152	3,180	2,121	1,440	1,355	309		90	245	508	770	559	167	123	121	55	Railway Materials. 981	19,528
Tobacco	405	683	1,422	1,190	91	1,723	357	373	44	81		70	3,394	4,432	9	—	76	53	3	9	340	299
Turmeric	205	73	698	1,064	40	303	12	1	5	47		8	—	—	—	—	—	523	—	57	Spices. 717	— 922
Twist	178	243	—	—	Stone. 7	496	157	487		25		—	—	—	—	—	101	150	3	10	Stone. 1,428	1,616
Wines, Spirits, &c.	2,433	3,033	233	223	38	200	414	483	61	739		560	274	223	9	—	51	30	15	11	608	609
Wool	178	273	638	1,008	194	2,070	20	21	Saltpetre. —	10		25	—	—	—	—	10	40	—	—	15	22

Not opened until 20th December 1879.

* Six weeks only. The line was opened on 15th November 1879.

STATEMENTS relating to the PASSENGER and GOODS TRAFFIC and the GROSS

TABLE No. 1.—STATEMENT of TRAFFIC on the INDIAN

Railway.	Actual Number of Miles open on 31st December, and Average Number of Miles of Open Line in use during 1880.						Number of Miles of Sidings on 31st December 1880.	Passenger Traffic.						Number of Holders of Season and Periodical Tickets.
	Double.		Single.		Total.			Number of Passengers (*exclusive of* Holders of Season and Periodical Tickets).						
	Actual.	Average.	Actual.	Average.	Actual.	Average.		By First Class.	By Second Class.	By Intermediate Class.	By Third Class.	By Fourth or Coolie Class.	Total by all the Classes.	
East Indian	410½	410½	1,093¾	1,093¾	1,504¼	1,504¼	316	43,563	145,781½	592,118½	7,300,365	—	8,081,828	12,676
GUARANTEED.														
Bombay, Baroda and Central India	23	23	(a) 421	(a) 421	(a) 444	(a) 444	80	30,205	223,216	—	Mail. 545,520 Ordinary. 5,438,133	—	6,237,074	8,036
Eastern Bengal	—	—	(b) 171¾	(b) 171¾	(b) 171¾	(b) 171¾	45	23,792½	51,795½	—	365,472	1,547,155	1,988,215	3,210
Great Indian Peninsula	322½	322½	965½	954	1,288	1,276½	(l) 220½	32,830	168,675	—	423,837	4,126,602	4,751,944	1,133
Madras	42½	42½	818	818	860½	860½	95½	11,683½	57,771½	—	3,940,557	—	4,003,012	55
Oudh and Rohilkund	—	—	546¾	546¾	546¾	546¾	79½	Upper 20,332½	—	—	Lower 2,412,133	—	2,432,465½	—
Sind, Punjab, and Delhi	4½	4½	659	659	663½	663½	110½	23,813	96,192½	14,489	4,025,629	—	4,160,123½	—
South Indian	—	—	653¼	639	653¼	639	56	7,744	42,248	—	4,427,863	—	4,477,855	—
Totals and averages: East Indian and Guaranteed Railways	803	803	5,329	5,303¼	6,132	6,106½	1,003	193,983½	778,680	606,607½	28,879,509	5,673,757	36,132,517	25,009
STATE.														
Calcutta and South-Eastern	—	—	28	28	28	28	6½	429	4,353	—	444,644	146,377	595,803	—
Cawnpore and Furrukabad (c)	—	—	49½	49½	49½	49½	7½	—	54	—	7,971	—	7,125	—
Dhond and Manmad	—	—	145¼	145¼	145¼	145¼	13½	1,296½	15,904	—	294,647½	—	311,988	—
Holkar and Sindia-Neemuch	—	—	254½	227½	254½	227½	25½	2,667	14,249	—	50,451	1,062,161	1,129,506	30
Indus Valley and Kandahar	—	—	653	594½	653	594½	54	4,317	30,332	—	1,329,276	—	1,364,425	—
Muttra-Hathras	—	—	29	29	29	29	3¾	Upper 1,112	—	1,249	Lower 320,117½	—	322,478½	—
Nagpur and Chattisgarh	—	—	53	33	53	33	4½	822	5,457	—	—	132,789	139,068	—
Nalhati	—	—	27½	27½	27½	27½	1½	595½	2,623½	—	131,872	—	135,091	—
Northern Bengal	—	—	(d) 230¾	(d) 230¾	(d) 230¾	(d) 230¾	(e) 27½	3,212½	5,593	13,122½	683,779	—	705,707	—
Patna-Gya	—	—	57	57	57	57	5¾	1,094	3,701	—	514,901	—	519,696	—
Punjab Northern	—	—	227½	181	227½	181	31	5,688	30,571	—	1,813,531	—	1,849,790	—
Rajputana	1½	1½	491½	472½	493	474	70½	7,276½	30,823½	—	2,006,733	—	2,044,833	—
Rajputana (Western)	—	—	82½	82½	82½	82½	14½	561	6,927	—	478,885	—	486,373	—
Rangoon and Irrawaddy Valley	—	—	161	161	161	161	32½	3,144	13,233	—	1,096,047	—	1,112,424	—
Sindia Northern Section	—	—	34	34	34	34	3½	1,051½	6,569	939½	133,003	—	141,563	—
Sindia Southern Section	—	—	32½	32½	32½	32½	2¾	887	2,768	—	69,048	—	72,703	—
Tirhut	—	—	(f) 82	(f) 82	(f) 82	(f) 82	12¾	3,142½	3,420	—	468,815	—	475,377½	—
Wardha Coal	—	—	46½	46	46½	46	6	316	318½	—	1,946	67,842½	70,423	—
Totals and averages: State Railways	1½	1½	2,685½	2,513	2,686½	2,514½	322½	38,112	176,986½	15,311	9,844,747	1,409,169½	11,484,326	30
NATIVE STATES.														
Amraoti (g)	—	—	5½	5½	5½	5½	⅓	473	2,606½	—	26,433½	41,653	71,166	—
Khamgaon (g)	—	—	7½	7½	7½	7½	⅓	206	417	—	513	24,270	25,406	—
Nizam's	—	—	121	120½	121	120½	9	2,488½	16,502	—	170,464½	(h) 138,014½	327,469½	—
Totals and averages: Native State Railways	—	—	134	133½	134	133½	10½	3,167½	19,525½	—	197,411	203,937½	424,042½	—
Indus Steam Flotilla	—	—	—	—	—	—	—	1	30	—	25	—	56	—
Totals and averages: All Railways and Flotilla	804½	804½	8,148½	7,949¼	8,952½	8,754½	1,326	235,244	975,222	621,918½	38,921,692	7,286,364	48,040,940½	25,120

(a) Includes the Patri Branch (State Line), 22 miles in length.
(b) The Parodaha Branch of the Northern Bengal State Railway, which is worked by this Company, is included in the mileage.
(c) Opened on 15*th December* 1880.
(d) Excludes Parodaha Branch. *Vide* note (b).
(e) Includes 3 miles of Parodaha Branch Sidings.
(f) Barh Branch (3 miles) excluded.
(g) Opened for a portion of the year only. These lines are now worked by the Great Indian Peninsula Railway Company.
(h) 4th Class abolished from 1st July 1880.
(l) Includes Mopatti Branch of 12¾ miles.

RECEIPTS and EXPENSES for the Year ended 31st December 1880.

RAILWAYS during the Year ended 31st December 1880.

Goods Traffic.											Railway.
Number of Live Stock.	Number of Tons of Minerals.			Number of Tons of General Merchandise.							
	Number of Tons of Coal and Coke.	Number of Tons of all other Minerals.	Total Number of Tons of Minerals.	Of First or Lowest Class.	Of Second Class.	Of Third Class.	Of Fourth Class.	Of Fifth or Highest Class.	Special and Sundry.	Total of all Classes.	
8,368	910,061	—	910,061	1,874,837	206,697	56,757	22,058	5,664	895,035	2,561,048	East Indian.
											GUARANTEED.
221,667	7,656 (i) 32,361 (i)	(k) 30,046	70,063	139,737	61,759	54,512	1,085	1,244	299,595	557,932	Bombay, Baroda and Central India.
608	16,908	4,360	21,268	39,235	79,620	3,374	—	—	270,676	392,905	Eastern Bengal.
350,716	21,704	—	21,704	112,104	198,348	46,911	19,600	1,156	754,391	1,132,510	Great Indian Peninsula.
20,33	153	—	153	136,506	64,621	21,087	4,859	2,421	379,419	608,913	Madras.
321	1,545	—	1,545	Low 86,138	—	Middle 42,161	—	High 3,335	468,636	600,270	Oudh and Rohilkund.
33,741	50,394	—	50,394	165,834	144,689	33,793	19,900	2,873	514,342	881,431	Sind, Punjab and Delhi.
2,788	—	—	—	7,775	—	—	1,824	32	508,409	518,040	South Indian.
639,127	1,040,782	34,406	1,075,188	2,062,166	755,734	258,595	69,326	16,725	4,090,503	7,273,049	Totals and averages: East Indian and Guaranteed Railways.
											STATE.
65	492	—	492	1,900	60	23	—	—	50,359	31,442	Calcutta and South-Eastern.
—	—	—	—	9	1	3	7	—	15	35	Cawnpore and Furrukabad.
18,355	1,510	—	1,510	9,042	8,317	3,267	405	140	48,665	69,836	Dhond and Manmad.
153	514	—	514	80,039	6,879	7,022	—	—	39,464	133,404	Holkar and Sindia-Neemuch.
23,972	5,060	—	5,060	43,514	64,846	11,737	1,734	751	378,277	500,859	Indus Valley and Kandahar.
—	—	—	—	293	25,902	6,052	—	—	—	32,247	Muttra Hathras.
2	380	—	380	749	1,585	492	30	7	104,217	107,080	Nagpur and Chattisgarh.
—	2,429	—	2,429	3,693	1,084	997	226	30	1,177	7,207	Nalhati.
137	2,062	—	2,062	17,937	12,188	5,633	—	—	85,334	121,092	Northern Bengal.
—	1,966	—	1,966	45,619	4,339	1,743	365	528	—	52,594	Patna-Gya.
20,434	—	—	—	23,316	37,344	20,137	2,351	894	189,508	273,550	Punjab Northern.
100	618	—	618	103,282	5,978	2,479	—	—	185,761	297,500	Rajputana.
113	111	—	111	54,589	3,075	3,089	—	—	17,045	77,798	Rajputana (Western).
4,721	—	—	—	8,702	5,387	1,697	—	—	96,520	112,306	Rangoon and Irrawaddy Valley.
4	1,534	—	1,534	9,982	2,189	863	200	103	18,080	31,417	Sindia — Northern Section.
—	697	—	697	1,531	1,149	460	188	69	—	3,397	Sindia — Southern Section.
—	3,570	—	3,570	20,621	3,864	943	—	—	45,145	70,573	Tirhut.
—	17,683	—	17,683	1,183	1,986	462	35	11	21,111	24,788	Wardha Coal.
68,556	38,626	—	38,626	425,101	193,173	67,099	5,541	2,533	1,260,678	1,947,125	Totals and averages: State Railways.
											NATIVE STATES.
—	21	—	21	5,115	3,229	1,532	72	40	13,102	23,090	Amraoti.
—	—	—	—	2,398	533	262	21	17	12,253	15,484	Khamgaon.
5,953	132	—	132	4,984	6,122	3,400	355	101	65,711	80,673	Nizam's.
5,953	153	—	153	12,497	9,884	5,194	448	158	91,066	119,247	Totals and averages: Native State Railways.
3	—	—	—	—	—	—	—	—	—	19,749	Indus Steam Flotilla.
713,639	1,079,561	34,406	1,113,967	2,499,764	951,791	330,888	75,315	19,416	5,442,247	9,339,170	Totals and averages: All Railways and Flotilla.

(i) On Company's account. (k) Company's own materials.

TABLE No. 2.—STATEMENT of TRAFFIC on the INDIAN RAILWAYS

Railway.	Number of Engines and Vehicles used in conveying Traffic.									Average Number of Vehicles in each Train.			
		Carriages.										In each Mixed Passenger and Goods Train.	
	Engines.	First Class.	Second Class.	Intermediate Class.	Third Class.	Fourth Class.	Composite.	Total Number.	Trucks, Horse Boxes, Brake Vans, &c.	Carriages in each Passenger Train.	Trucks in each Goods Train.	Carriages.	Trucks.
East Indian	515	92	99	53	435	—	17	696	7,297	16	31	16	7
GUARANTEED.													
Bombay, Baroda and Central India	60	14	19	—	162	—	15	210	2,366	9	41	12	15
Eastern Bengal	37	20	4	—	49	31	21	145	897	11	40	8	22
Great Indian Peninsula	433	83	151	—	288	160	92	774	8,112	15	27	10	11
Madras	100	28	56	—	203	—	26	313	2,627	11	21	6	16
Oudh and Rohilkund	118*	Upper 36	Officers 4	—	Lower 206	—	2	248	3,086	22	35	11	11
Sind, Punjab and Delhi	126	32	27	15	231	—	19	324	2,949	16	27	9	9
South Indian	108	28	30	—	304	—	17	379	1,630	—	—	20	
Totals and averages for East Indian and Guaranteed Railways	1,497	333	390	68	1,878	211	209	3,089	28,964	14	31	10	13
STATE.													
Calcutta and South-Eastern	4	Saloon 1	—	—	20	25	3	49	174	18	13	10	16
Cawnpore and Furrukabad†	11	—	—	—	13	—	—	13	150	—	—	11	1
Dhond and Manmad	9	8	7	—	24	—	—	39	274	20	13	9	7
Holkar and Sindia-Neemuch	51	Saloon 15	9	—	18	85	9	135	762	13	20	14	7
Indus Valley and Kandahar	98	18	19	—	124	—	5	166	1,927	27	23	5	17
Muttra-Hathras	5	Upper 4	—	4	Lower 24	—	—	32	75	—	—	8	6
Nagpur and Chattisgarh	12	2	4	—	—	6	—	12	345	13	23	13	6
Nalhati	6	2	1	—	6	—	—	9	26	5	8	7	4
Northern Bengal	40	Saloons 2 21	6	10	53	—	9	101	337	13	24	11	7
Patna-Gya	8	2	2	—	15	—	2	21	99	15	9	13	8
Punjab Northern	68	8	8	—	69	—	7	92	963	10	25	12	9
Rajputana	142	49	43	12	220	—	10	334	2,327	13	21	13	7
Rajputana (Western)	35	9	3	—	47	—	3	62	372	14	28	7	15
Rangoon and Irrawaddy Valley	31	7	14	—	113	—	12	146	651	19	29	13	17
Sindia—Northern Section	1	(On Loan from East Indian Railway.)							—	—	—	12	9
Sindia—Southern Section	—	2	1	—	11	—	—	14	16	9	—	8	4
Tirhut	10	7	3	—	28	1	39	78	250	8	21	10	8
Wardha Coal	3	—	—	—	3	4	2	9	161	—	16	6	10
Totals and averages for State Railways	534	158	120	26	786	119	101	1,310	9,409	14	19	13	11
NATIVE STATES.													
Amraoti†	1	—	—	—	6	—	2	8	1	—	12	7	5
Khamgaon†	2	—	—	—	6	—	2	8	1	—	10	5	5
Nizam's	10	5	7	—	32	—	4	48	134	17	16	12	7
Totals and averages for Native State Railways	13	5	7	—	44	—	8	64	136	17	12	8	6
Totals and averages for all Railways	2,044	496	517	94	2,708	330	318	4,463	38,509	14	22	11	11

* Exclusive of "Tank" and "Inspection" Engines.

† Open for a portion of the year only.

during the Year ended 31st December 1880.

Number of Miles travelled by Trains (except in shunting, piloting, and assisting).								
By Passenger (including Special and Troop) Trains.	By Goods (including Construction Materials for other Railways) Trains.	By Mineral Trains.	By Mixed Passenger and Goods Trains.		By Trains conveying Materials for Revenue Purposes.	Total Number of Train Miles.	Number of Train Miles per open Mile.	Railway.
			(P.)	(G.)		(T.)		
1,404,156	4,048,632	308,467	1,147,843	744,759	290,663	7,944,520	5,270·8	East Indian.
								GUARANTEED.
411,161	607,278	—	155,814	183,611	15,922	1,373,281	3,093	Bombay, Baroda and Central India.
235,720	212,803	—	68,558	158,255	—	675,336	3,932	Eastern Bengal.
1,715,299	3,532,350	—	281,604	355,183	—	5,884,436	4,604	Great Indian Peninsula.
677,859	197,993	—	262,487	735,000	—	1,873,339	2,183	Madras.
20,472	420,755	—	485,428	318,651	69,908	1,324,253	2,421·6	Oudh and Rohilkund.
624,092	1,347,550	—	585,627	203,592	182,453	2,948,314	4,447	Sind, Punjab and Delhi.
72,734	176,843	—	433,745	512,696	107,049	1,297,067	2,050	South Indian.
5,161,493	10,547,199	308,467	3,420,606	3,216,786	665,995	23,320,546	3,803	Totals and averages for East Indian and Guaranteed Railways.
								STATE.
14,846	176	—	7,579	13,233	1,186	37,020	1,322·1	Calcutta and South-Eastern.
—	—	—	3,316	99	—	3,415	69	Cawnpore and Furrukabad.
5,536	31,134	—	97,251	91,595	—	225,516	1,548·3	Dhond and Manmad.
57,750	211,282	—	185,722	56,955	9,867	521,585	2,295	Holkar and Sindia-Neemuch
38,649	865,256	—	817,814		649	1,722,368	2,864·2	Indus Valley and Kandahar.
—	—	—	27,213	18,355	—	45,568	1,571·3	Mutra-Hathras.
1,764	24,931	—	8,755	3,623	190	39,263	740	Nagpur and Chattisgarh.
27	1,695	—	26,067	12,137	2,986	42,912	1,576	Nalhati.
4,124	193,745	—	199,060	127,286	16,157	540,372	2,342·4	Northern Bengal.
2,476	27,192	—	51,829	31,619	—	113,116	1,978	Patna-Gya.
124,710	519,350	—	185,606	90,411	40,878	960,955	5,304	Punjab Northern.
196,519	711,786	—	270,577	175,741	78,781	1,433,404	3,026	Rajputana.
69,283	167,728	—	12,099	24,128	—	273,188	3,306	Rajputana (Western).
118,269	84,348	—	63,935	60,884	61,728	398,164	2,473	Rangoon and Irrawaddy Valley.
916	113	—	14,628	11,175	3,525	30,357	826	Sindia. (Northern Section.)
1,753	—	—	15,773	6,700	13,908	38,134	1,139	Sindia. (Southern Section.)
3,391	18,391	—	55,640	44,573	321	122,316	1,491	Tirhut.
—	12,301	—	13,653	15,327	1,778	43,059	936	Wardha Coal.
639,972	2,869,428	—	1,238,763	792,841	231,954	6,590,712	2,453	Totals and averages for State Railways.
			817,814					
								NATIVE STATES.
18	90	—	4,238	3,094	—	7,440	1,352	Amraoti.
—	16	—	2,877	2,947	—	5,840	775	Khamgaon.
1,565	46,229	—	110,914	72,419	16,658	247,785	2,057	Nizam's.
1,583	46,335	—	118,029	78,460	16,658	261,065	1,948	Totals and averages for Native State Railways.
5,803,048	13,462,962	308,467	4,777,398	4,088,087	914,607	30,172,323	3,370	Totals and averages for all Railways.
			817,814					

TABLE No. 2.—STATEMENT of TRAFFIC on the INDIAN RAILWAYS

Railway.	Passenger Traffic. Number of Passenger Miles (expressed in the Number of Passengers carried one mile). First Class.	Second Class.	Intermediate Class.	Third Class.	Fourth Class.	Total of all other sources of Coaching Traffic (expressed in Average Passenger Miles).	Grand Total.
East Indian	6,560,013	27,129,790	22,340,924	554,156,486	—	77,705,228	687,892,441
GUARANTEED.							
Bombay, Baroda and Central India	1,101,195	6,843,776	—	Mail 45,609,652 Ordinary 111,707,190	—	5,150,040[1]	170,412,453
Eastern Bengal	917,033	1,736,001	—	16,687,657	53,290,439	32,691	72,663,821
Great Indian Peninsula	5,888,565	35,544,265	—	46,976,359	223,036,145	53,502,880	364,948,214
Madras	2,241,902	10,162,051	—	171,628,177	—	23,574,233	207,626,458
Oudh and Rohilkund	Upper 1,553,974	—	—	Lower 130,143,406	—	10,238,575	141,935,955
Sind, Punjab and Delhi	2,710,234	15,443,762	1,306,838	240,792,281	—	54,395,293	314 648,408
South Indian	474,404	1,799,991	—	146,837,284	—	6,966,400	155,778,079
Totals and averages for East Indian and Guaranteed Railways	21,447,410	98,679,636	23,647,762	1,464,538,492	276,326,584	231,265,945	2,115,905,829
STATE.							
Calcutta and South-Eastern	6,199	49,517	—	4,236,317	1,273,695	200,550	5,766,278
Cawnpore and Furrukabad	—	2,044	—	184,212	—	1,296	187,552
Dhond and Manmad	98,290	1,872,815	—	17,358,948	—	70,933	19,400,986
Holkar and Sindia-Neemuch	148,009	878,339	—	2,353,490	43,297,755	109,521	46,784,714
Indus Valley and Kandahar	942,743	7,320,704	—	90,626,420	—	38,005,375	136,895,242
Muttra-Hathras	Upper 30,273	—	25,375	Lower 6,113,364	—	28,705	6,197,717
Nagpur and Chattisgarh	9,058	54,358	—	—	1,489,024	3,094	1,556,434
Nalhati	15,826	70,330	—	2,537,172	—	69,203	2,692,531
Northern Bengal	379,620	611,986	1,131,352	29,630,428	—	2,659,133	34,412,519
Patna-Gya	49,364	144,651	—	20,287,754	180,468	—	20,662,287
Punjab Northern	355,777	1,754,960	—	76,354,617	—	5,791,600	84,756,954
Rajputana	322,847	1,279,269	—	90,006,504	—	6,841,299	98,449,919
Rajputana (Western)	31,429	379,732	—	16,364,435	—	465,984	17,241,580
Rangoon and Irrawaddy Valley	150,529	703,944	—	44,352,962	—	658,808	45,866,243
Sindia — Northern Section	36,189	228,535	30,542	4,395,745	—	576,219	5,267,228
Sindia — Southern Section	25,796	85,665	—	2,057,957	—	290,886	2,460,304
Tirhut	126,757	142,243	—	14,980,402	—	429,685	15,688,087
Wardha Coal	9,307	10,444	—	57,506	1,742,293	5,751	1,825,286
Totals and averages for State Railways	2,738,613	15,584,566	1,187,269	422,409,231	47,984,140	56,208,0 2	546,111,841
NATIVE STATES.							
Amraoti	2,888	15,039	—	158,604	249,918	933	427,932
Khamgaon	1,648	3,336	—	4,104	194,160	538	203,786
Nizam's	220,885	1,505,308	—	9,978,483	6,994,662	2,957,635	21,657,973
Totals and averages for Native State Railways	225,371	1,524,283	—	10,141,191	7,438,740	2,959,106	22,288,691
Totals and averages for all Railways	24,411,394	115,788,485	24,835,031	1,897,088,914	331,749,464	290,433,073	2,684,306,361

[1] Season tickets only.

during the Year ended 31st December 1880—*continued.*

Number of Ton Miles (expressed in the Number of Tons moved One Mile).											
Express Luggage, Parcels, Carriages, Horses, Dogs, &c. conveyed in Passenger Trains.	Goods Traffic.								Proportion of Up and Down Traffic.		Railway.
	Minerals.	General Merchandise.						Total Mineral and General Merchandise.			
		First or Lowest Class.	Second Class.	Third Class.	Fourth Class.	Fifth Class.	Special and Sundry.	Total of all Classes.	Up.	Down.	
6,945,341	214,590,470	371,548,198	90,335,895	20,493,727	7,187,174	1,616,838	92,801,048	583,982,930	798,573,400	47·23	52·77	East Indian.
											GUARANTEED.
1,506,191	9,693,079	23,759,127	12,460,466	13,218,911	221,126	334,108	40,976,075	90,969,813	100,662,892	60·52	39·48	Bombay, Baroda nd Central India.
696,135	1,632,118	3,725,830	11,122,649	458,109	—	—	31,812,626	47,119,214	48,751,332	26·05	73·95	Eastern Bengal.
3,343,759	2,905,558	82,183,942	61,072,725	12,796,207	6,033,153	408,447	242,392,329	354,886,803	357,792,361	67	33	Great Indian Peninsula.
1,399,130	22,872	21,529,385	11,159,908	3,707,598	910,235	466,488	27,994,049	65,767,663	65,790,535	58	42	Madras.
695,953	73,013	Low 12,429,437	—	Middle 5,207,921	—	High 438,856	49,504,714	67,580,928	67,653,941	58·48	41·57	Oudh and Rohilkund.
—	10,413,073	25,907,837	21,551,631	5,207,389	3,149,232	451,849	61,402,764	117,670,702	128,083,775	60	40	Sind, Punjab and Delhi.
214,132	—	810,474	—	—	183,724	4,787	32,658,767	33,657,752	33,657,752	45·25	54·75	South Indian.
14,800,641	239,330,183	491,894,230	207,703,274	61,089,912	17,634,644	3,721,379	579,542,372	1,361,635,805	1,606,965,988	52·81	47·19	Totals and averages for East Indian and Guaranteed Railways.
											STATE.
10,534	9,733	18,114	1,226	542	—	—	713,517	733,399	743,132	97·29	2·71	Calcutta and South-Eastern.
—	—	452	42	143	334	4	729	1,704	1,704	15·02	84·98	Cawnpore and Furrukabad.
143,686	93,123	909,745	612,165	216,138	35,550	13,307	3,662,589	5,440,494	5,542,617	66·42	33·58	Dhond and Manmad.
178,421	23,055	6,506,499	771,614	743,357	—	—	2,965,786	10,987,256	11,010,311	25·36	74·64	Holkar and Sindia-Neemuch.
3,006,019	1,563,246	12,169,854	14,935,664	2,291,354	550,812	147,352	58,430,636	88,515,672	90,078,918	29·75	70·25	Indus Valley and Kandahar.
12,391	—	6,447	396,768	74,482	—	—	—	477,697	477,697	85·21	14·79	Muttra-Hathras.
878	20,137	13,089	33,894	9,817	793	193	1,563,915	1,626,701	1,646,838	45·43	54·57	Nagpur and Chattisgarh.
8,037	65,598	71,698	28,540	26,855	6,234	805	27,018	161,150	226,748	76	24	Nalhati.
169,635	246,595	1,461,280	1,348,588	978,186	—	—	9,785,292	13,573,346	13,819,941	56·12	63·88	Northern Bengal.
25,510	85,212	2,319,360	218,272	86,762	19,324	26,000	—	2,669,727	2,754,939	38	62	Patna-Gya.
904,056	—	1,755,886	3,657,112	1,690,973	253,615	89,405	22,873,329	30,320,220	30,320,220	17·28	82·72	Punjab Northern.
269,926	92,809	14,446,352	959,484	339,853	—	—	29,048,791	44,794,480	44,887,289	40·1	59·9	Rajputana.
47,703	4,199	2,899,549	232,681	201,420	—	—	1,123,130	4,456,780	4,460,979	46·12	53·88	Rajputana (Western).
111,641	—	855,933	612,333	184,461	—	—	9,007,019	10,659,746	10,659,746	13·05	86·95	Rangoon and Irrawaddy Valley.
34,442	57,761	301,693	61,803	28,288	6,664	3,669	325,896	728,013	785,774	41·8	58·2	Sindia - Northern Section.
48,881	22,566	48,051	37,269	14,779	6,079	2,189	—	108,367	130,933	87	13	Sindia - Southern Section.
49,395	180,418	815,277	185,342	47,627	—	—	1,872,742	2,920,988	3,101,406	49	51	Tirhut.
5,536	786,992	42,840	54,373	14,673	1,238	429	733,305	846,853	1,633,850	81·36	18·64	Wardha Coal.
4,986,741	3,251,944	44,642,119	24,147,170	6,939,710	880,043	283,362	142,139,194	219,031,598	222,283,042	49·46	50·54	Totals and averages for State Railways.
											NATIVE STATES.
2,275	125	30,089	19,373	9,193	433	242	78,612	138,542	138,667	48·85	51·15	Amraoti.
1,126	—	19,187	4,262	2,096	272	134	98,024	123,875	125,875	62·58	37·42	Khamgaon.
177,185	12,468	529,124	570,553	382,999	40,668	11,818	4,870,827	6,414,989	6,427,457	9·22	90·78	Nizam's.
180,586	12,593	579,000	603,188	394,288	41,373	12,194	5,047,463	6,677,406	6,689,999	40·22	59·78	Totals and averages for Native State Railways
19,967,968	242,594,220	537,115,349	232,453,632	68,423,910	18,605,960	4,016,929	726,729,029	1,587,344,809	1,829,939,029	49·43	50·57	Totals and averages for all Railways.

TABLE No. 3.—GROSS RECEIPTS of the INDIAN RAILWAYS

Railway.	Passenger Traffic.												Receipts from		
	Receipts from Passengers.							Total Receipts from Excess Luggage, Parcels, Carriages, Horses, Dogs, &c. conveyed in Passenger Trains.	Receipts for Mail Service.	Receipts from Special Trains.	Receipts from Troop Trains.	Total Receipts from Passenger Traffic.	Passenger Receipts per Train Mile.	Receipts from Live Stock.		
	First Class.	Second Class.	Intermediate Class.	Third Class.	Fourth or Coolie Class.	Holders of Season or Periodical Tickets.	Total Receipts from Passengers.								From Coal and Coke.	From other Minerals.
	£	£	£	£	£	£	£	£	£	£	£	(P.) £	s.	£	£	£
East Indian	44,232	56,854	42,722	766,363	—	5,331	915,502	90,192	13,736	5,222	47,392	1,070,949	8·28	2,662	432,343	—
GUARANTEED.																
Bombay, Baroda and Central India	5,094	11,084	—	Mail. 63,647 Ordinary. 131,639	—	4,535	216,049	21,519	330	223	9,427	247,548	8·74	11,911	5,211	3,325*
Eastern Bengal	4,022	4,159	—	23,322	75,140	1,665	113,608	22,072	467	167	—	136,284	8·98	93	4,230	445
Great Indian Peninsula	40,827	85,057	—	89,396	264,213	1,371	480,864	77,579	2,267	1,200	—	562,000	5·63	7,990	18,561	—
Madras	14,749	19,246	—	172,707	—	172	206,874	25,200	—	1,205	—	233,369	4·96	2,473	84	—
Oudh and Rohilkund	Upper 7,408	—	—	Lower 170,577	—	—	177,985	13,274	—	57	—	191,316	7·56	1,373	237	—
Sind, Punjab, and Delhi	15,058	29,297	2,823	285,049	—	—	332,232	67,653	1,034	918	—	401,832	6·64	17,627	23,857	—
South Indian	4,205	5,367	—	179,751	—	1	189,324	7,697	22	614	—	197,657	3·32	142	—	—
Totals and averages: East Indian and Guaranteed Railways	135,595	211,064	48,550	1,887,451	339,353	13,125	2,632,438	325,276	17,916	7,601	56,824	3,040,055	7·05	44,261	502,903	3,770
STATE.																
Calcutta and South-Eastern	49	209	—	5,859	1,303	—	7,420	253	14	—	—	7,687	6·96	8	39	—
Cawnpore and Furrukabad	—	7	—	193	—	—	200	6	—	—	—	206	1·24	—	—	—
Dhond and Manmad	867	4,078	—	23,898	—	—	28,843	2,781	469	—	—	32,093	6·24	84	361	—
Holkar and Sindia-Neemuch	1,198	2,100	—	3,825	46,639	103	53,375	4,031	495	30	—	57,971	4·78	162	163	—
Indus Valley and Kandahar	4,667	11,649	—	113,995	—	—	130,311	41,345	1,751	897	5,287	180,891	8·83	13,900	4,427	—
Muttra-Hathras	Upper 199	—	71	Lower 8,018	—	—	8,288	374	99	11	—	8,272	6·45	—	—	—
Nagpur and Chattisgarh	73	191	—	—	1,655	—	1,919	40	—	12	—	1,971	3·7	1	66	—
Nalhati	152	338	—	4,060	—	—	4,550	345	23	—	—	4,918	3·77	—	396	—
Northern Bengal	3,514	2,582	2,651	38,542	—	—	47,289	4,076	1,359	386	—	53,110	5·23	79	1,005	—
Patna-Gya	462	678	—	31,731	—	—	32,871	794	65	80	—	33,810	12·35	—	414	—
Punjab Northern	2,901	5,776	—	79,961	—	—	88,738	13,835	1,347	40	4,023	107,973	6·96	3,614	—	—
Rajputana	1,822	2,942	—	94,496	—	—	99,260	5,045	2,064	319	—	106,688	4·56	73	624	—
Rajputana (Western)	161	730	—	19,562	—	—	20,453	1,413	162	45	—	22,073	5·60	11	30	—
Rangoon and Irrawaddy Valley	1,160	2,095	—	68,371	—	—	71,626	2,495	276	125	—	74,522	8·18	1,030	—	—
Sindia Northern Section	243	397	62	6,067	—	—	6,769	452	229	59	608	8,117	10·44	—	203	—
Sindia Southern Section	308	394	—	3,238	—	—	3,940	388	121	21	—	4,470	5·10	—	111	—
Tirhut	1,053	699	—	18,787	—	—	20,539	1,428	281	379	—	22,627	7·66	—	1,111	—
Wardha Coal	71	37	—	120	2,155	—	2,413	222	91	—	—	2,726	3·82	—	2,752	—
Totals and averages: State Railways	18,990	34,902	2,784	520,223	51,792	103	628,794	79,813	8,836	2,254	10,918	730,115	7·71	24,612	11,812	—
NATIVE STATES.																
Amraotit	23	51	—	330	326	—	730	140	16	—	13	899	4·24	—	1	—
Khamgaont	13	13	—	9	267	—	302	42	18	—	—	362	2·52	—	—	—
Nizam's	1,804	4,119	—	11,675	9,045	—	26,643	4,234	—	—	—	30,877	5·51	138	62	—
Totals and averages: Native State Railways	1,840	4,183	—	12,014	9,638	—	27,675	4,416	34	—	13	32,138	5·37	138	63	—
Indus Steam Flotilla	2	22	—	4	—	—	28	82	—	—	—	30	—	5	—	—
Totals and averages: All Railways and Indus Steam Flotilla	156,727	250,171	48,334	2,419,692	400,783	13,228	3,288,935	409,037	26,786	9,855	67,755	3,802,333	7·18	68,416	513,938	3,770

* Company's own materials carried on Capital Account.

† Open for a portion of the year only.

during Year ended 31st December 1880.

Goods Traffic.															
Minerals.	Receipts from General Merchandise (*exclusive of* Live Stock and Minerals).														
Total Receipts from Minerals.	From First or Lowest Class.	From Second Class.	From Third Class.	From Fourth Class.	From Fifth or Highest Class.	From Special and Sundry.	Total.	Total Receipts from Goods Traffic.	Goods Receipts per Train Mile.	Total Receipts from Passenger and Goods Traffic.	Passenger and Goods Receipts per Train Mile.	Total Miscellaneous Receipts.	Miscellaneous Receipts per Train Mile.	Total Receipts from Passengers, Goods, and Miscellaneous.	Total Receipts per Train Mile.	Railway.
£	£	£	£	£	£	£	£	(G.) £	s.	(P.) + (G.) £	s.	(M.) £	d.	(P.) + (G.) + (M.) £	s.	
452,343	1,127,614	556,960	176,757	66,118	21,309	330,919	2,279,677	2,784,682	10·14	3,804,731	9·57	131,904	0·33	3,936,635	9·91	East Indian.
																GUARANTEED.
8,536	118,190	72,936	94,078	3,224	7,075	158,056	453,559	474,006	11·99	721,554	10·63	34,180	0·50	755,734	11·14	Bombay, Baroda and Central India.
5,225	15,951	94,479	5,377	—	—	140,722	256,529	261,697	14·12	398,181	11·79	9,856	0·29	408,037	12·08	Eastern Bengal.
10,501	163,409	486,210	144,950	74,356	8,963	782,427	1,660,315	1,678,796	8·64	2,240,796	7·61	46,586	0·16	2,287,382	7·77	Great Indian Peninsula.
81	91,199	67,270	28,988	9,330	6,117	95,326	298,730	301,287	6·45	534,656	5·70	30,244	0·32	564,900	6·03	Madras.
237	Low c 45,901	—	Middle 59,763	—	High 6,193	129,109	220,957	221,667	5·92	412,983	6·58	32,592	0·52	445,575	7·10	Oudh and Rohilkund.
28,857	115,327	148,767	47,191	35,517	6,063	217,958	570,823	617,307	7·93	1,019,139	7·37	96,223	0·69	1,115,362	8·06	Sind, Punjab and Delhi.
—	4,816	—	—	2,189	116	131,304	138,425	138,567	2·33	336,224	5·65	4,904	0·08	341,128	5·73	South Indian.
505,833	1,691,507	1,426,622	537,194	191,234	55,836	1,985,812	5,878,115	6,428,209	9·34	9,468,264	8·47	386,429	0·38	9,854,693	8·45	Totals and averages: East Indian and Guaranteed Railways.
																STATE.
39	100	18	10	—	—	3,155	3,283	3,339	4·97	11,017	6·15	3,193	1·78	14,210	7·93	Calcutta and South-Eastern.
—	2	—	1	4	—	3	10	10	2·01	216	1·26	4	0·02	220	1·29	Cawnpore and Furrukabad.
361	5,409	5,924	2,742	644	307	18,505	33,531	33,976	5·54	66,039	5·86	3,451	0·30	69,510	6·16	Dhond and Manmad.
163	45,632	8,123	10,243	—	—	14,011	78,059	78,384	5·64	136,355	5·33	3,793	0·15	140,148	5·48	Holkar and Sindia-Neemuch.
4,427	57,854	105,937	21,722	6,287	2,105	188,551	382,456	400,333	6·10	581,224	6·75	66,042	0·77	647,266	7·52	Indus Valley and Kandahar.
—	25	3,156	1,195	—	—	89	4,465	4,465	4·87	13,237	5·81	285	0·12	13,522	5·93	Muttra-Hathras.
66	180	478	193	18	6	7,440	8,315	8,382	5·8	10,353	5·3	47	0·02	10,395	5·41	Nagpur and Chattisgarh.
396	494	309	388	143	34	144	1,512	1,908	2·76	6,826	3·43	166	0·09	6,992	3·50	Nalhati.
1,005	7,238	13,039	13,597	—	—	47,346	81,220	82,304	5·13	135,414	5·17	9,516	0·36	144,930	5·53	Northern Bengal.
414	10,353	1,581	826	234	377	—	13,371	13,733	4·89	47,595	8·41	561	0·10	48,156	8·51	Patna-Gya.
—	10,674	28,407	17,149	3,186	1,389	117,099	177,834	186,408	6·11	294,471	6·40	42,357	0·88	336,828	7·01	Punjab Northern.
624	93,290	9,659	4,633	—	—	148,706	256,288	256,985	5·79	363,673	5·37	8,699	0·12	372,372	5·20	Rajputana.
30	20,032	2,218	2,848	—	—	5,184	30,302	30,343	5·26	42,416	3·72	12,594	0·96	65,010	4·75	Rajputana (Western).
—	5,529	5,527	2,131	—	—	41,551	54,738	55,818	7·24	130,340	7·75	1,931	0·11	132,271	7·86	Rangoon and Irrawaddy Valley.
263	1,167	459	264	78	51	758	2,772	3,035	4·09	11,152	7·34	102	0·06	11,254	7·41	Sindia { Northern Section.
111	917	876	428	221	75	—	2,517	2,628	7·81	7,098	5·92	13,084	6·91	20,182	10·60	Sindia { Southern Section.
1,111	6,326	2,132	708	—	—	9,870	19,036	20,147	6·39	42,774	7·01	2,518‡	0·41	45,292	7·41	Tirhut.
2,752	382	664	244	27	11	3,378	4,706	7,458	5·40	10,184	4·91	11,260	5·21	21,444	9·90	Wardha Coal.
11,812	265,674	188,567	79,322	10,837	4,335	605,790	1,154,465	1,190,289	6·61	1,920,404	6·93	179,598	1·20	2,100,002	6·37	Totals and averages: State Railways.
																NATIVE STATES.
1	938	646	357	22	13	2,110	4,106	4,107	26·55	5,006	13·46	81	0·22	5,087	13·67	Amraoti.
—	383	116	68	7	7	1,631	2,212	2,212	14·93	2,574	8·81	163	0·56	2,737	9·37	Khamgaon.
62	3,478	5,188	5,218	770	307	22,270	37,231	37,431	6·31	68,308	5·91	1,963	0·21	70,271	6·08	Nizam's.
63	4,819	5,950	5,643	799	327	26,011	43,549	43,750	7·01	75,888	6·21	2,207	0·33	78,095	6·18	Totals and averages: Native State Railways.
—	—	—	—	—	—	—	9,456	9,461	—	9,541	—	12,819	—	22,360	—	Indus Steam Flotilla.
517,708	1,952,000	1,621,079	622,069	202,870	60,498	2,617,613	7,035,585	7,671,709	8·74	11,474,097	8·15	581,053	0·76	12,055,150	7·99	Totals and averages: All Railways and Indus Steam Flotilla.

‡ Exclude 9,814*l.* the earnings of the Steam Ferry worked by this Company.

TABLE No. 4.—EXPENDITURE on REVENUE ACCOUNT

Railway.	Maintenance and Renewal of Way and Works.					Cost of producing Locomotive Power by Wages and Materials.			Repairs and Renewals of Carriages and Wagons.			Coaching and Merchandise.			Collection and Delivery of Goods.		
	Ordinary.	Special.	Gross.	Per Train Mile.	Per cent. of Gross Receipts.	Gross.	Per Train Mile.	Per cent. of Gross Receipts.	Gross.	Per Train Mile.	Per cent. of Gross Receipts.	Gross.	Per Train Mile.	Per cent. of Gross Receipts.	Gross.	Per Train Mile	Per cent. of Gross Receipts.
	£	£	£	d.		£	d.		£	d.		£	d.		£	d.	
East Indian	404,072	—	404,072	12·21	10·26	319,290	9·64	8·11	140,066	4·23	3·56	237,291	7·17	6·03	—	—	—
GUARANTEED.																	
Bombay, Baroda and Central India.	68,153	1,338	69,491	12·14	9·20	127,664	22·31	16·89	20,608	3·60	2·73	52,451	9·17	6·94	423	0·07	0·05
Eastern Bengal	36,335	—	36,335	12·91	8·90	39,863	14·16	9·77	19,643	6·98	4·81	46,278	16·44	11·34	—	—	—
Great Indian Peninsula	308,434	8,610	317,044	12·93	13·9	448,104	18·27	19·6	177,422	7·24	7·8	186,161	7·59	8·1	343	0·01	0·02
Madras	94,861	19,065	113,926	14·60	20·17	128,314	16·44	22·71	29,467	3·78	5·22	58,351	7·48	10·33	2,162	0·28	0·38
Oudh and Rohilkund	61,476	—	61,476	11·14	13·80	72,754	13·18	16·33	24,778	4·49	5·56	53,273	9·65	11·96	116	0·02	0·03
Sind, Punjab and Delhi	81,166	27,358	108,524	8·83	9·73	209,187	17·02	18·75	53,192	4·33	4·76	97,352	7·92	8·72	283	0·02	0·02
South Indian	54,835	—	54,835	10·14	16·07	102,336	18·94	29·99	34,164	6·32	10·02	32,650	6·04	9·57	—	—	—
Totals and averages for East Indian and Guaranteed Railways	1,109,332	56,371	1,165,703	11·86	12·75	1,447,517	16·24	17·76	499,340	5·12	5·56	763,807	8·93	9·12	3,327	0·03	0·10
STATE.																	
Calcutta and South-Eastern	3,079	—	3,079	19·96	21·67	2,525	16·37	17·77	1,235	8·01	8·69	1,358	8·80	9·56	—	—	—
Cawnpore and Furrukabad†	—	—	—	—	—	136	9·56	61·82	6	0·42	2·73	—	—	—	—	—	—
Dhond and Manmad	2,874	—	2,874	10·51	14·21	25,816	27·47	37·14	2,083	2·22	2·99	8,498	9·04	12·23	—	—	—
Holkar and Sindia-Neemuch	20,669	6,598	27,267	12·55	19·45	37,978	17·47	27·10	10,968	5·05	7·83	16,930	7·79	12·08	—	—	—
Indus Valley and Kandahar	75,717	—	75,717	10·55	11·69	178,063	24·81	27·51	24,903	3·33	3·75	62,926	8·76	9·72	—	—	—
Muttra-Hathras	1,468	—	1,468	7·73	10·85	1,720	9·06	12·72	90	0·47	0·67	—	—	—	414	2·18	3·07
Nagpur and Chattisgarh	—	—	—	—	—	3,593	21·41	32·50	913	5·62	8·41	2,217	13·60	20·53	—	—	—
Nalhati	2,570	—	2,570	14·37	36·76	1,775	9·93	25·39	585	3·27	8·37	826	4·62	11·81	—	—	—
Northern Bengal	19,046	—	19,046	8·46	13·14	25,853	11·48	17·84	3,756	1·67	2·59	16,364	7·27	11·29	—	—	—
Patna-Gya	4,230	—	4,230	8·97	8·78	7,188	15·25	14·93	1,903	4·04	3·95	3,842	8·15	7·98	—	—	—
Punjab Northern	30,797	—	30,797	7·69	9·14	106,282	26·96	31·55	8,541	2·13	2·54	34,304	8·56	10·18	—	—	—
Rajputana	50,645	—	50,645	8·48	13·60	120,431	20·16	32·34	13,961	2·34	3·75	35,011	5·86	9·40	—	—	—
Rajputana (Western)	5,259*	—	5,259*	4·62	8·09	25,111	22·06	23·63	3,950	3·47	6·07	11,565	10·16	17·79	—	—	—
Rangoon and Irrawaddy Valley.	21,190	—	21,190	12·77	16·02	24,266	14·63	18·35	4,211	2·54	3·18	17,451	10·52	13·19	—	—	—
Sindia (Northern Section)	1,419	—	1,419	11·22	12·61	1,752	13·85	15·57	453	3·58	4·02	891	7·05	7·92	—	—	—
Sindia (Southern Section)	3,003	—	3,003	18·90	14·88	2,312	14·55	11·46	421	2·65	2·09	2,205	13·87	10·92	—	—	—
Tirhut	6,657	—	6,657	13·06	14·70	6,642	13·03	14·66	1,687	3·31	3·72	5,452	10·70	12·04	—	—	—
Wardha Coal	2,383	—	2,383	13·21	11·12	2,649	14·70	12·32	538	2·91	2·53	2,242	12·41	10·44	—	—	—
Totals and averages for State Railways	258,006	6,598	264,604	11·44	14·79	574,007	16·82	21·97	79,904	3·17	4·32	222,082	9·19	11·58	414	2·18	3·07
NATIVE STATES.																	
Amraoti†	264	459	723	23·32	14·21	1,375	44·35	27·03	—	—	—	1,182	38·13	23·23	—	—	—
Khamgaon†	310	—	310	12·74	11·38	673	27·60	24·59	—	—	—	483	19·85	17·65	—	—	—
Nizam's	7,258	—	7,258	7·03	10·36	17,083	16·54	24·31	2,768	2·68	3·94	8,541	8·27	12·15	—	—	—
Totals and averages for Native State Railways	7,832	459	8,291	14·36	11·95	19,131	29·51	25·31	2,768	2·68	3·94	10,206	22·08	17·67	—	—	—
Indus Steam Flotilla	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total and averages for all Railways and Indus Steam Flotilla	1,375,170	63,428	1,438,598	11·67	13·89	2,040,655	17·63	23·02	581,712	3·72	4·67	996,095	9·82	10·80	3,741	0·21	0·29

* For six months only, the line being under construction for the first half of the year

† Open for a portion of the year only.

during Year ended 31st December 1880.

Rates and Taxes.			Compensation for Personal Injury, &c., Damage and Loss of Goods.					Legal and Parliamentary Expenses.			Miscellaneous Working Expenditure, not included in the foregoing.			Total Working Expenditure.			Railway.
Gross.	Per Train Mile.	Per cent. of Gross Receipts.	Personal.	Goods.	Gross.	Per Train Mile.	Per cent. of Gross Receipts.	Gross.	Per Train Mile.	Per cent. of Gross Receipts.	Gross.	Per Train Mile.	Per cent. of Gross Receipts.	Gross.	Per Train Mile.	Per cent. of Gross Receipts.	
£	d.		£	£	£	d.		£	d.		£	d.		£	s.		
5,188	0·15	0·13	—	219	219	0·01	0·01	646	0·02	0·02	194,047	5·86	4·92	1,300,814	3·27	33·04	East Indian.
																	GUARANTEED.
705	0·12	0·09	—	476	476	0·08	0·06	101	0·02	0·01	49,806	8·71	6·60	321,725	4·68	42·57	Bombay, Baroda and Central India.
793	0·28	0·19	—	721	721	0·25	0·17	240	0·08	0·05	30,980	11·01	7·59	174,858	5·18	42·85	Eastern Bengal.
3,204	0·13	0·15	—	194	194	0·01	0·02	−263	−0·01	−0·02	137,164	5·59	6·01	1,269,373	4·31	55·5	Great Indian Peninsula.
1,394	0·17	0·23	2,393	3,044	5,437	0·70	0·96	3,389	0·50	0·69	42,646	5·46	7·55	385,496	4·12	68·24	Madras.
77	0·01	0·02	60	75	135	0·02	0·03	137	0·02	0·03	42,323	7·68	9·50	255,074	3·85	57·25	Oudh and Rohilkund.
464	0·06	0·04	9	4,134	4,143	0·33	0·37	421	0·03	0·03	111,667	9·09	10·01	585,233	3·07	52·47	Sind, Punjab and Delhi.
948	0·17	0·28	—	436	436	0·08	0·13	92	0·02	0·03	26,540	4·91	7·78	252,001	3·89	73·87	South Indian.
12,678	0·13	0·14	2,462	9,299	11,761	0·18	0·22	5,263	0·08	0·10	635,178	7·29	7·49	4,544,574	3·89	46·12	Totals and averages for East Indian and Guaranteed Railways.
																	STATE.
97	0·63	0·68	—	16	16	0·10	0·11	—	—	—	1,824	11·83	12·84	10,134	5·47	71·32	Calcutta and South-Eastern.
—	—	—	—	—	—	—	—	—	—	—	371	26·07	168·63	513	3·00	233·18	Cawnpore and Furrukabad.
—	—	—	—	74	74	0·98	0·31	—	—	—	14,342	15·27	20·63	60,658	5·38	87·31	Dhond and Manmad.
—	—	—	—	—	—	—	—	—	—	—	10,663	4·99	7·61	103,806	3·98	74·07	Holkar and Sindia-Neemuch.
—	—	—	1	3,289	3,289	0·46	0·51	479	0·06	00·7	109,063	15·19	16·85	453,840	5·26	70·19	Indus Valley and Kandahar.
—	—	—	—	—	—	—	—	—	—	—	3,737	19·79	27·78	7,449	3·27	55·09	Muttra-Hathras.
—	—	—	—	—	—	—	—	—	—	—	1,630	9·91	15·16	8,208	4·21	76·52	Nagpur and Chattisgarh.
9	0·05	0·13	—	1	1	0·01	0·01	16	0·09	0·23	1,533	8·85	22·64	7,365	5·43	105·33	Nalhati.
28	0·01	0·02	3	1,146	1,149	0·51	0·79	20	0·01	0·02	19,223	8·54	13·26	85,489	3·16	58·95	Northern Bengal.
54	0·11	0·11	—	202	202	0·43	0·42	28	0·06	0·06	9,583	20·33	19·90	27,030	4·78	56·13	Patna-Gya.
—	—	—	—	2,300	2,300	0·57	0·68	—	—	—	98,187	24·52	29·16	280,411	5·84	83·25	Punjab Northern.
—	—	—	—	110	110	0·01	0·03	—	—	—	28,883	4·84	7·76	249,041	3·47	66·88	Rajputana.
—	—	—	5	71	76	0·06	0·01	6	0·00	0·00	9,805	8·61	15·09	55,772	4·08	85·78	Rajputana (Western).
687	0·42	0·52	33	27	60	0·04	0·05	18	0·01	0·01	12,280	7·40	9·28	80,163	4·03	60·60	Rangoon and Irrawaddy Valley.
20	0·16	0·18	—	9	9	0·07	0·08	19	0·16	0·17	736	5·81	6·53	5,299	3·49	47·08	Sindia—Northern Section.
—	—	—	—	19	19	0·12	0·09	—	—	—	9,811	61·74	48·61	17,771	9·32	88·05	Sindia—Southern Section.
42	0·09	0·09	—	16	16	0·03	0·04	17	0·03	0·04	5,707‡	11·20	12·60	26,220‡	4·29	57·89	Tirhut.
—	—	—	—	—	—	—	—	—	—	—	26,880§	149·81	125·30	34,692§	16·12	161·70	Wardha Coal.
937	0·21	0·24	41	7,280	7,321	0·18	0·22	603	0·05	0·07	364,329	23·03	26·64	1,513,901	4·59	72·09	Totals and averages for State Railways.
																	NATIVE STATES.
—	—	—	—	128	128	4·13	2·52	—	—	—	1,315*	42·42	25·85	4,723	12·70	92·84	Amraoti.
—	—	—	—	—	—	—	—	—	—	—	778	31·97	28·42	2,244	7·68	81·99	Khamgaon.
—	—	—	—	12	12	0·01	0·02	15	0·01	0·02	12,164	11·78	17·31	47,841	3·86	68·08	Nizam's.
—	—	—	—	140	140	2·37	1·27	15	0·01	0·02	14,257	28·72	23·86	54,808	4·19	70·18	Totals and averages for Native State Railways.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	50,094	—	228·059	Indus Steam Flotilla.
13,615	0·16	0·19	2,503	16,719	19,222	0·19	0·23	5,881	0·06	0·08	1,013,764	13·63	20·37	6,164,277	4·05	51·13	Totals and averages for all Railways and Indus Steam Flotilla.

‡ Excludes the cost of working this Company's Steam Ferry, namely 4,860?.
§ Includes expenditure on account of the Warora Colliery.

CANALS AND IRRIGATION.

Canals and Irrigation.

81. Before proceeding to sum up the contents of this Report, I beg permission to allude to another matter connected with productive works in India. These Reports have been hitherto exclusively devoted to the consideration of questions connected with the railways of India, but it seems desirable that information in a concise shape should also be given annually with respect to that no less important branch of public works which includes canals and irrigation. Those who take an interest in the subject are probably equally desirous of knowing what advance has been made in the one as in the other. The material improvement and trade of the country depends in a great measure upon the judicious extension of both, and together they provide the best security against scarcity. They both involve the expenditure of public money, and curiosity is naturally directed to their financial results. With the view of obtaining accurate information in a shape more complete than that given in the usual "Finance and Revenue" returns prepared for Parliament, the Government of India have been requested to obtain statements relating to Canals, as near alike as the circumstances admit to those obtained for Railways. Returns in this new form have not yet been received, and cannot therefore be included in the present Report, but, with your Lordship's permission, I propose that they shall be inserted in that for next year. I would, at the same time, premise that figured statements are not invariably a just criterion of the true value of a work, and that, when applied to canals, they cannot show anything like the whole advantages to be derived from their operation. They serve, however, to give the direct financial results, which, though imperfect as a measure of their usefulness, enable comparisons to be made between the working of similar undertakings in various districts, and furnish information for future guidance. As a precursor to more extended information, an abstract is given below from the statement contained in the Finance and Revenue Accounts for 1879–80, showing the general results of the Irrigation works for the year; and I have appended to this Report a Despatch from your Lordship to the Governor General of India in Council, dated last January, reviewing the history of the Ganges Canal, the greatest work of the kind in India, if not in the world. It will, I think, be acknowledged that its present position is an example not only of the immense benefits which a well selected work of this description confers on the districts which it irrigates, but of the financial success which may attend one so boldly conceived and skilfully executed.

82. It will be seen, by the statement on the following page, that the aggregate amount of the earnings from Canals for the year 1879–80, after paying the working expenses, was 882,414*l.*, being at the rate of 7·9*l.* per cent. on the capital outlay of 17,696,348*l.* The results thus arrived at are, as in the case of the Railways, exclusive of the charge for interest on the capital expenditure, which, in the accounts, is usually deducted from the receipts before they are accepted as net earnings. The present purpose is to show their actual earnings during the year, and not their financial position according to the system of accounts which has been adopted for the purpose of exhibiting, very properly, their losses and gains from the commencement. In the Madras Presidency, the receipts were at the rate of 28·3*l.* per cent.; in the North-West Provinces, which include the Ganges and Agra Canals, they were 5·03*l.*, and in the Punjab 3·9 per cent.; but on the Bengal Canals they were only at the rate of ·4, and in the Bombay there was a loss at the rate of 2·2*l.* per cent.

For the Year 1879–80.

STATEMENT showing the Capital Outlay on Productive Irrigation Works, the Gross Receipts, the Working Expenses (excluding Interest), and the Net Receipts.

	Capital Outlay, excluding all Interest charges.		Revenue during 1879–80.			Working Expenses, 1879–80.	Excluding Interest at 4½ per cent. on past Capital Outlay, plus half the outlay of the Year.			
									Rate per cent.	
	To end of 1879–80.	During 1879–80.	Water Rates, &c.	Collected with Land Revenue.	Total.		Excess Revenue.	Excess Expenditure.	Of Excess Revenue.	Of Excess Expenditure.
BENGAL.	£	£	£	£	£	£	£	£	£	£
Orissa Project	1,877,593	46,310	27,919	Permanent revenue settlement exists in Bengal.	27,919	36,777	—	8,358	—	·5
Midnapore Series	749,047	16,053	24,722		24,722	15,440	9,282	—	1·2	—
Tidal Canal	177,271	—	4,578		4,578	4,228	350	—	·2	—
Soane Project	2,175,989	97,694	53,159		53,159	35,731	17,428	—	·8	—
Total	4,979,900	160,057	110,378	—	110,378	92,176	18,202	—	·4	—
NORTH-WESTERN PROVINCES.										
Ganges Canal	3,024,541	27,944	290,564	66,893	357,457	107,496	249,961	—	8·3	—
Agra Canal	777,155	2,855	42,151	Nothing available until revision of settlement.	42,151	21,684	20,467	—	2·6	—
*Lower Ganges Canal (only just finished).	1,543,219	139,122	5,860		5,860	7,071	—	1,211	—	·1
Total	5,345,919	169,921	338,575	66,893	405,468	136,251	269,217	—	5·03	—
PUNJAB.										
Western Jumna Canal	691,940	41,057	113,055	27,583	140,638	43,624	97,014	—	14·02	—
Bari Doab Canal	1,494,937	338	119,129	Nothing available until revision of revenue settlement.	119,129	46,415	72,714	—	4·9	—
*Sirhind Canal, British expenditure.	1,255,382	180,471	These have only just been opened.		These have only just been opened, and have yielded no returns yet.					
*Sirhind Canal, Native State expenditure.	762,651	74,968								
*Swat River Canal	111,904	84,706								
Total	4,316,814	301,540	232,184	27,583	259,767	90,039	169,728	—	3·9	—
MADRAS.										
Godaveri Delta System	829,060	19,395	7,545	150,150	157,695	32,044	125,651	—	15·1	—
Kistna Delta System	486,222	3,960	3,323	68,765	72,088	20,776	51,312	—	10·5	—
Penner Anicut System	141,951	713	35	14,843	14,873	4,802	10,071	—	7·0	—
Cauvery Delta System	142,080	3,574	349	237,754	238,103	7,539	230,564	—	162·3	—
Srivaikuntham Weir Project.	121,308	3,031	321	12,342	12,663	3,281	9,382	—	7·7	—
Total	1,720,621	22,753	11,563	*483,859	495,422	†62,442	426,980	—	28·3	—
BOMBAY.										
Bógari Canal	117,166	4,955	98	7,566	7,664	7,387	277	—	·2	—
Eastern Narra Works, including Thur and Mithrow Canal.	323,081	3,991	631	15,859	16,490	12,395	4,095	—	1·2	—
Hathmati Canal	48,004	79	517	—	517	1,040	—	523	—	‡1·0
Lakh Canal	34,163	740	89	—	89	318	—	229	—	·6
Kadva River Works‡	28,932	812	493	59	552	439	113	—	·5	—
Krishna Canal	74,754	103	2,624	—	2,624	953	1,671	—	2·2	—
Panjhra River Works, including Mookti Reservoir.	45,655	553	279	186	465	298	167	—	·3	—
Ekruk Tank	119085	1,030	677	—	677	1,596	—	919	—	·8
Mutha Storage Lake and Canal.	547,254	10,216	9,933	—	9,933	4,558	5,375	—	·9	—
Total	1,338,094	22,479	15,341	§23,670	39,011	‖28,984	10,027	—	—	1·2

* These works have only just been finished.

SUMMARY OF RAILWAY OPERATIONS.

83. During the year 1880, a greater extent of railway has been opened for traffic than in any previous year since the commencement of operations. Up to the 31st December, a length of 838 miles was added to the 8,487 miles open on 1st January, and 266 miles more were finished before the close of the official year 1880–81. The whole extent now completed is 9,591 miles, of which 6,906¾ are constructed with the 5 ft. 6 in. gauge, 2,334½ with the metre gauge, 27¼ with a 4 feet, and 56¾ with a 2 ft. 6 in. gauge. 6,033½ miles have been constructed and are worked by Companies, 2,931¾ are State lands, 296¾ miles are within Native States.

84. The principal additions made are lines in connection with the frontier towards Peshawur in the north and Quetta in the south. The line to the former place will be completed within a few months. No steps have been taken for continuing the line beyond Sibi to Quetta, but a branch has been taken to the foot of the Bolan Pass. These lines have proved to be most useful during the operation of withdrawing the troops from Afghanistan, and the officers who conducted the traffic arrangements have received the thanks of the Government for the excellent manner in which they performed their arduous duties.

85. The capital which has been embarked in railways in India now amounts to upwards of 129,000,000*l.* During the year under review, a sum of 6,374,353*l.* was expended. Of this 5,051,638*l.* was laid out on State and Provincial lines, 628,273*l.* on lines in Native States, 610,973*l.* on Guaranteed lines, and 83,469*l.* on the East Indian. The whole capital above stated is thus divided, viz., 30,970,407*l.* on the East Indian, 66,518,261*l.* on the Guaranteed lines, 29,589,157*l.* on State lines, and 2,021,139*l.* on lines in Native States. The average cost per mile, taking broad and narrow gauge lines together, is 13,844*l.* In 1870, the average cost was 16,445*l.*

86. The net receipts on the total amount of capital expended were at the rate of 4*l.* 11*s.* per cent. per annum, compared with 4*l.* 7*s.* of the previous year. The Guaranteed lines, including the East Indian, yielded 5·43 per cent; the State lines 2 per cent. With regard to the latter, it is noticed that a large extent has only just been opened and is scarcely finished; also that those on the frontier are lines constructed more for military than for commercial purposes; but that others which have been opened sufficiently long to develope a traffic have yielded at the rate of 4·23, 4·50, and 6·56 per cent.

87. The total net revenue derived from all the railways was 5,907,422*l.*, the gross receipts having been 12,099,593*l.*, and the expenses 6,192,171*l.* The East Indian Railway earned a net revenue of 2,635,831*l.*, and, after paying all the charges for the annuity, for interest on debentures and on Government advances of capital, showed a surplus profit (calculated at the current rate of 1*s.* 7½*d.* the rupee) of 757,086*l.*, of which four fifths, viz., 605,669*l.* went to the Government, and one fifth, viz., 151,417*l.*, to the Company. The net receipts from the Guaranteed Companies amounted to 2,662,213*l.*, being 600,966*l.* less than the guaranteed interest; so that, taking the Guaranteed and the East Indian lines together, the advances by Government for guaranteed interest were covered by the receipts. Under the new contract with the East Indian Railway Company, the Government received 223,514*l.* more than they would have been entitled to, as surplus profits, under the old.

88. The expenses of working and maintenance amounted to 6,192,171*l.*, compared with 5,858,512*l.* of the previous year. The percentage of expenditure to gross receipts was 51·13, compared with 52·16 of the year 1879. The Guaranteed lines were worked at an average of 46·60 per cent., the State lines of 72·02 of gross receipts. The East Indian was as low as 33·04, and the Bombay and Baroda and Eastern Bengal were 42·57 and 42·85 respectively.

89. The aggregate quantity of goods carried on all the lines amounted to 9,319,421 tons compared with 7,876,766 of the previous year. The amount received for the conveyance of the same was 7,671,709*l.*, compared with 7,274,403*l.*

90. The number of passengers increased from 43,144,608 in 1879 to 48,066,060. The average number per mile was 5,490, compared with 5,140, and the amount paid by passengers was 3,802,388*l.*, compared with 3,413,910*l.*

91. The shipments of railway material from this country to India during the year have amounted to 275,627 tons, of the value of 2,296,563*l.*, the freight for which was 422,463*l.* Besides the 145,041 tons of coal, 594 of coke and 8,845 of patent fuel was sent out. The coal consumed on the lines amounted to 173,340 tons of English or Australian coal, 330,875 tons of Indian coal, 7,077 tons of coke, 8,383 tons of patent fuel, and 183,634 tons of wood.

92. The number of persons employed in working and maintaining the lines was, on the 30th September, 155,734, compared with 142,199 in the previous year. More than 95 per cent. were Natives, 2·386 were Eurasians, and 2·441 Europeans. The training of Natives for the positions of foreman mechanics and drivers continues, and success has attended the efforts hitherto made to qualify them for these duties. Some advance has also been made with respect to the education in a suitable climate, on high ground, of the children of the European staff. The Volunteers formed from the different classes of Europeans continue to do good service, and satisfactory reports on their efficiency have been given.

93. The chief articles of commerce in which there has been increased traffic were coal, cotton, hides, jagree and sugar, tea, rice, salt, seeds, piece goods, tobacco.

94. That the growth which, of late years, has taken place in the foreign trade of India is due in a large measure to the influence of railway communication cannot be doubted. We have seen the quantity of merchandise, exclusive of minerals, conveyed by railways increase from 2,633,687 tons in 1870, when the mileage was 4,775, to 9,319,421 tons in 1880, when 9,325 miles were open. In the same period, the value of exports, as will be seen by the subjoined table, has increased from 55,336,186*l.* to 74,517,957*l.*, and of imports from 34,469,119*l.* to 50,278,875*l.* Going back twenty years, when only 840 miles of railway were open, the total value of imports and exports (exclusive of treasure) was 56,464,321*l.* Last year it was 124,796,832*l.*

STATEMENT showing the Value of IMPORTS and EXPORTS of INDIA (exclusive of Treasure), the number of Miles of Railway at the end of each Year.

Year.	Value of Imports of Merchandise.	Value of Exports of Merchandise.	Total Value.	Miles of Railway open.
	£	£	£	Miles.
1860–61 - -	23,493,716	32,970,605	56,464,321	840
1865-66 - -	29,599,228	65,491,123	95,090,351	3,373
1870–71 - -	34,469,119	55,336,186	89,805,305	4,775
1875–76 - -	38,891,656	58,091,495	96,983,151	6,519
1880–81 - -	50,278,875	74,517,957	124,796,832	9,325

N.B.—All conversions are made at 2*s.* the rupee.

95. It is also fair to conclude that the same influence has been at work in connection with certain sources of revenue, which have yielded improved returns. The following table shows that the Land Revenue, without any addition of territory, increased from 18,508,991*l.* in 1860–61 to 20,622,823*l.* in 1870–71, and to 22,463,548*l.* in 1879–80. Some of this increase is due, no doubt, to the effects of irrigation, which, last year, helped to contribute 602,398*l.* In future years the receipts from this source will be shown separately. The development of the Salt Revenue is also satisfactory.* From 3,805,124*l.* in 1860, it rose to 6,106,280*l.* in 1870, and to 7,266,413*l.* in 1879–80.

STATEMENT showing certain Sources of the REVENUE of INDIA during quinquennial periods since 1860.

Year.	Land Revenue.	Customs Duties.	Salt Revenue.	Stamps.
	£	£	£	£
1860–61 - - -	18,508,991	4,163,151	3,805,124	1,182,781
1865–66 - - -	20,473,897	2,279,857	5,342,149	1,994,632
1870–71 - - -	20,622,823	2,610,789	6,106,280	2,510,316
1875–76 - - -	21,593,742	2,721,389	6,244,415	2,835,368
1879–80 - - -	21,861,150	2,280,793	7,266,413	3,193,739
	602,398*			
	22,463,548			

* Derived from irrigated lands, which is included in the above sums, but is now kept separate.
N.B.—All conversions are made at 2*s.* the rupee.

* It should be remarked that, within the last period, viz., between 1875 and 1879, the duty has been reduced in Bengal from Rs. 3·4 to Rs. 2·14, and has been raised in Madras and Bombay from Rs. 1·6 and Rs. 1·8 respectively to Rs. 2·8.

96. Thus it has been shown that railways are yearly becoming more and more a source of profit to the State, and that, as they grow in extent, they continue to advance the commerce, civilization, and general prosperity of the country.

I have the honour to be,

My Lord Marquis,

Your Lordship's very obedient humble Servant,

JULAND DANVERS.

APPENDICES.

No. 1.

EXTRACT from the Financial Statement of the Hon. Major Evelyn Baring, C.S.I., C.I.E., R.A., Calcutta, 25th March 1881.

V.—*Capital Expenditure on Productive Public Works.*

A sum of 1,405,000*l.* appears under the head of "Productive Public Works" in the Estimates or 1881–82 on account of the purchase of the Madras Irrigation Company's undertaking, and 360,000*l.* on account of Capital expenditure on the East Indian Railway. 2,608,000*l.* appears as Capital expenditure on Productive Public Works. Of this sum, 108,000*l.* is the unexpended balance of the grants of former years. The balance (2,500,000*l.*) represents the Productive Public Works grant for the year. It is intended to spend 1,780,000*l.* on Railways, 758,000*l.* on Irrigation, and 70,000*l.* on the Madras Harbour works.

No subject has of late years been more thoroughly discussed than the question of whether it is desirable or not to continue the policy of borrowing in order to construct productive public works in India. In 1879 a Committee of the House of Commons recorded its opinion that the expenditure upon railways and irrigation "though not remunerative in the aggregate, has upon the whole been beneficial to India, and that, although considerable sums have been wasted and certain profitless schemes undertaken, the policy of continuing to borrow for productive public works may, within the limits and restrictions hereinafter laid down, be continued."

The Committee then proceeded to lay down certain restrictions, the principal of which was that no more than 2,500,000*l.* should for the present be borrowed in any one year. The limited amount of capital available in India; the undesirabilty of adding to the sterling debt; the fact, to which the Committee allude, that in India there is little or no publicity, and still less extraneous engineering talent to criticise the projects emanating from the Public Works Department; the unavoidable difficulties encountered by any great central department, however zealous and intelligent its individual members may be, in exercising an effective control over the expenditure of vast sums of money, appear to justify this restriction. Successive Secretaries of State have adopted the principles recommended by the Committee. The present Secretary of State has given somewhat greater precision to the instructions of his predecessors. It has been laid down that "the question of constructing new railways is to be considered on commercial principles. No new line is to be undertaken, unless there is good prospect of its proving remunerative; that is to say, unless it can be fairly calculated to pay, within a maximum limit of five years from the date of the line being open for traffic, four per cent. on the capital invested, including therein all arrears of simple interest incurred up to that date, and also the capitalized value of the land revenue and of leave allowances and pensions."

In the case of irrigation works, it is said,—"Commercial principles may be so far relaxed as to admit of their being undertaken if they can fairly be estimated to prove remunerative in ten years from the date of their completion, on similar terms."

Such are the instructions of Her Majesty's Government, and it would, in any case, be the duty of the Government of India to carry them into execution. But I wish to express my concurrence in the principles which have been laid down.

It is, however, manifest that a capital expenditure of 2,500,000*l.* a year is inadequate to meet the present wants of India. Are we, therefore, to abandon all hope of constructing canals and railways with the rapidity which the exigencies of the country demand? I hope not. It has always appeared to me a remarkable fact that India,—with all its magnificent and, as yet, only half developed resources, and with all the security to life and property resulting from a Government, which, whatever be its defects, is at all events strong, honest, and well intentioned,—should up to the present time have been obliged to pledge the full security of the State in order to attract any considerable portion of the surplus capital of England. I hope that some railways afford sufficient attraction to induce private individuals to undertake their construction without the aid of Government, or, at all events, with a minimum amount of such aid. I do not question the wisdom of the policy which would permit private capitalists to embark in this field. It was, therefore, with pleasure that I read the following instructions which have been received from the Secretary of State:—

"In the case of railways, I do not doubt that your Excellency will bear constantly in mind the importance, whenever possible, of ensuring their construction by private capital, either local or European. It is true that, up to the present time, no companies have been found willing to undertake the construction of railways without a Government guarantee; but I would, nevertheless, strongly urge upon your Excellency that, when any reasonable prospect of success presents

" itself, an endeavour should be made to encourage the raising of capital through private agency, on " the exclusive security of the success of the undertaking. Any step in this direction will meet with my " most cordial support and co-operation. In the event of its becoming apparent that the due execution " of this policy is impracticable, it may become desirable to consider whether a modified system of " guarantee might not advantageously be adopted. By a modified system I mean one so restricted " in respect to time and to the rate of interest guaranteed as to give the subscribers a real interest " in the efficient and economical administration of the railway."

It is sometimes urged that a railway is a monopoly, and, for that reason, should be in the hands of the State, and not of any private interests. Further, that to concede the right of building a railway is to part with one of our most productive resources.

It is true that a railway is generally a practical monopoly. The State, therefore, should exercise so much supervision over its working as will prevent the monopoly being exercised in a manner detrimental to the public interests. Thus the State should possess a right of inspection, in order that the line may be certified by competent authority to be safe for the transport of goods and passengers. It should regulate the maximum tariff, and fix the gauge on which the line is to be constructed. It is especially necessary that a conditional right of purchase after the lapse of a certain period should be reserved. But when provision has been made for these and some other points, which I will not now enumerate, the necessity for State interference ceases. The interests of the public do not necessarily demand that the State should create an artificial monopoly in its own favour in respect to the construction of all railways.

As regards the loss of revenue, it may be urged that if the profits of the railway be left to fructify in the pockets of the people they will be more advantageously employed than would be the case were they paid to the State, with a great chance of their being employed on unproductive expenditure. Moreover, it is to be observed that the indirect benefits to the State and to the country resulting from the extension of railway communication are obtained equally well whether the railways are constructed by Government or by private agency. The value of land is enhanced; new markets are opened; an impetus is given to the export trade, and the greater power of transport and concentration affords a hope that military expenditure may be reduced.

Even if the general arguments in favour of constructing railways solely through the agency of the State were more valid than I conceive them to be, I should still hold that those arguments did not apply in India. The first economic requirement of India is that her resources should be developed without delay, and that means of communication should be so improved as to facilitate emigration from districts which are over-populated to those in which labour is scarce. I doubt whether Government agency alone can adequately perform this task, and I hold that, in any case, it is not desirable that it should do so, if private agency can be found to undertake the work. I am not without hope that, if an impulse can be given to railway construction by British enterprise, Native capitalists will enter the field, either alone or in conjunction with Englishmen. I should regard such a movement as an important factor in the practical education of the people, inasmuch as it would tend to wean the natives of India from that dependence upon Government which is intensified by concentrating in the hands of the State all the organized skill which the construction and management of a railway requires. If ever the natives of this country are to be schooled in the first rudiments of self-government, it is desirable that they should be encouraged to act for themselves in such matters, rather than that they should rely always upon that coercive philanthropy which insists upon doing everything for them.

A more real obstacle to the construction of railways by private agency without a Government guarantee is to be found in the fact that, up to the present time, it has not been found possible to form a company willing to undertake them. In fact, the impossibility of inducing capitalists to undertake the construction of railways in India at their own risk with a minimum amount of Government interference was one of the main reasons which led to the adoption of State agency in the place of the guarantee system in 1869.

Since 1869 the desirability of encouraging private capitalists to make railways without a guarantee has been frequently pressed upon the Government of India, and it has always been assumed that the policy was impossible of execution. It does not, however, follow that what was impossible twelve years ago is so now. During that period the financial aspect of railway enterprise in India has improved, whilst at the same time the amount of capital seeking investment in the world has increased. I am not over sanguine as to the possibility of developing the resources of India rapidly through the agency of private enterprise, but the end to be attained is so important that the policy merits a further trial. Some progress has already been made. A company has been formed under the auspices of Messrs. Rothschild with a view to the construction of a railway from Calcutta to Jessore and Khoolna. I am hopeful that the example given by a firm of such high standing and reputation as Messrs. Rothschild will give an impulse to the construction of railways through the agency of private enterprise. If local capital will come forward, so much the better; if not, it is to be hoped that European capital will be forthcoming.

I am unable as yet to say anything definite as to the conditions under which concessions may be made to private capitalists. Possibly, those conditions may vary according to the exigencies of each particular case. It appears to me, however, that the Government may legitimately help in a variety of ways short of giving a guarantee. Government officers may make surveys and estimates, and supply all necessary information with a view to enabling private individuals to judge for themselves whether they care to invest their money in any particular scheme. The land on which the line is constructed may sometimes be given free of cost. Possibly, in some cases, grants of waste land in the vicinity of a new line may be given. On the other hand, certain conditions, to some

of which I have already alluded, must be imposed, and it will be important only to give concessions to such persons as can afford good security that they have at their command a sufficient amount of capital to carry out the undertaking to a successful issue.

No. 2.

THE GANGES CANAL.

Public Works, No. 5.

To His Excellency the Most Honourable the Governor General of India in Council.

India Office,
London, 20th January 1881.

My Lord Marquis,

Para. 1. I have read with interest and satisfaction, and have considered in Council your Financial Letter and its enclosures, No. 273, dated 24th August last, regarding the Ganges Canal.

2. The increased outlay on works since the capital expenditure of Rs. 3,18,33,905 was sanctioned in 1873 by the Duke of Argyll, appears to have been fully justified, and I give my assent to the additional sum of Rs. 23,13,272 required for completion of drainage operations and for the construction of the Dasna Canal as a navigable channel to connect the Ganges and Agra Canals, this last sub-project being estimated to cost Rs. 7,50,000.

3. The capital sum expended on the Canal, including the value of land revenue sacrificed, and of the estimated cost, in connection with the work, of leave and pension allowances, will then amount to Rs. 3,67,34,945; but of this an amount of Rs. 47,70,053 will have been expended on works which attach to the separate and still incomplete project of the Lower Ganges Canal, and the capital cost of the Ganges Canal proper, including the Dasna channels, will amount to Rs. 3,19,64,892.

4. The net revenue, direct and indirect, from the Ganges Canal, for the year 1878–79, amounted to Rs. 23,13,658, affording a return of 7·23 per cent. upon this capital.

5. The book charge for interest on the capital expended, which accumulated before the revenue of the Canal sufficed to cover expenses, stands now at Rs. 92,78,216. Allowing an interest of 4½ per cent. to be due on the capital cost, the continuance of the present amount of net revenue, without enhancement, for 10½ years longer, will, besides paying that interest, entirely wipe out this debt.

6. The publication of these facts should sufficiently refute the opinions sometimes hazarded in disparagement of the financial success of this great work.

7. The original suggestion of a canal from the Ganges was due to the late Colonel John Colvin, of the Bengal Engineers, but the idea was not taken up practically till the famine in Northern India during the years 1837–38 forcibly drew attention to the importance and value of such works, as exemplified by the results of the canals from the Jumna. The scheme was worked out by the late Sir Proby Cautley, who must always hold the first place in the history of this work, and with the sanction of the Court of Directors, it was commenced in 1842, when Mr. Thomason, whose support largely contributed to the acceptance of the project, was Lieutenant-Governor of the North-West Provinces. Several of the ablest Engineer officers of the Indian Service were, during the years of its construction, connected with the Ganges Canal, notably General Sir W. E. Baker, the late Colonel R. Baird Smith, and the late Colonel A. D. Turnbull. The project has undergone various modifications and amplifications, and has had to pass through formidable difficulties and occasional interruptions, till at length the work has reached its present state of efficiency.

8. I find that the entire length of the Canal, including branches, is 627 miles, that the length of the distributary channels amounts to 3,538 miles, and that the area over which irrigation has, up to the present time, extended, amounts to 1,182,330 acres. It is difficult to over-estimate the importance of such an instrument in securing harvests, in improving the agriculture, and in promoting the prosperity of the provinces through which it runs; whilst with a continuance of good management we may confidently look for a yet wider spread of its benefits, and for a considerable and growing addition, through its action, to the revenues of the State. In every aspect this great undertaking has proved worthy of the genius that conceived it, as well as of the devoted patience and industry which have been bestowed upon its construction, and the intelligence which has marked its subsequent management.

9. Among the additions to the original project found necessary were, as the papers forwarded show, extensive works for the drainage of tracts through which the Canal and its branches run.

10. I especially desire that the periodical reports of the Irrigation Department should show, in a condensed statement, what results have been attained by these drainage works, in the reduction of water level in saturated soil, in the diminution of that saline efflorescence which has been attributed to the action of the canal water in low lands, and in the improvement of local health.

I have, &c.,
(Signed) . HARTINGTON.

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For Her Majesty's Stationery Office.

REPORT

TO

THE SECRETARY OF STATE FOR INDIA IN COUNCIL

ON

RAILWAYS IN INDIA

FOR THE YEAR

1881-82.

BY JULAND DANVERS, ESQ.,

GOVERNMENT DIRECTOR OF INDIAN RAILWAY COMPANIES, AND SECRETARY, PUBLIC WORKS DEPARTMENT, INDIA OFFICE.

Presented to both Houses of Parliament by Command of Her Majesty.

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1882.

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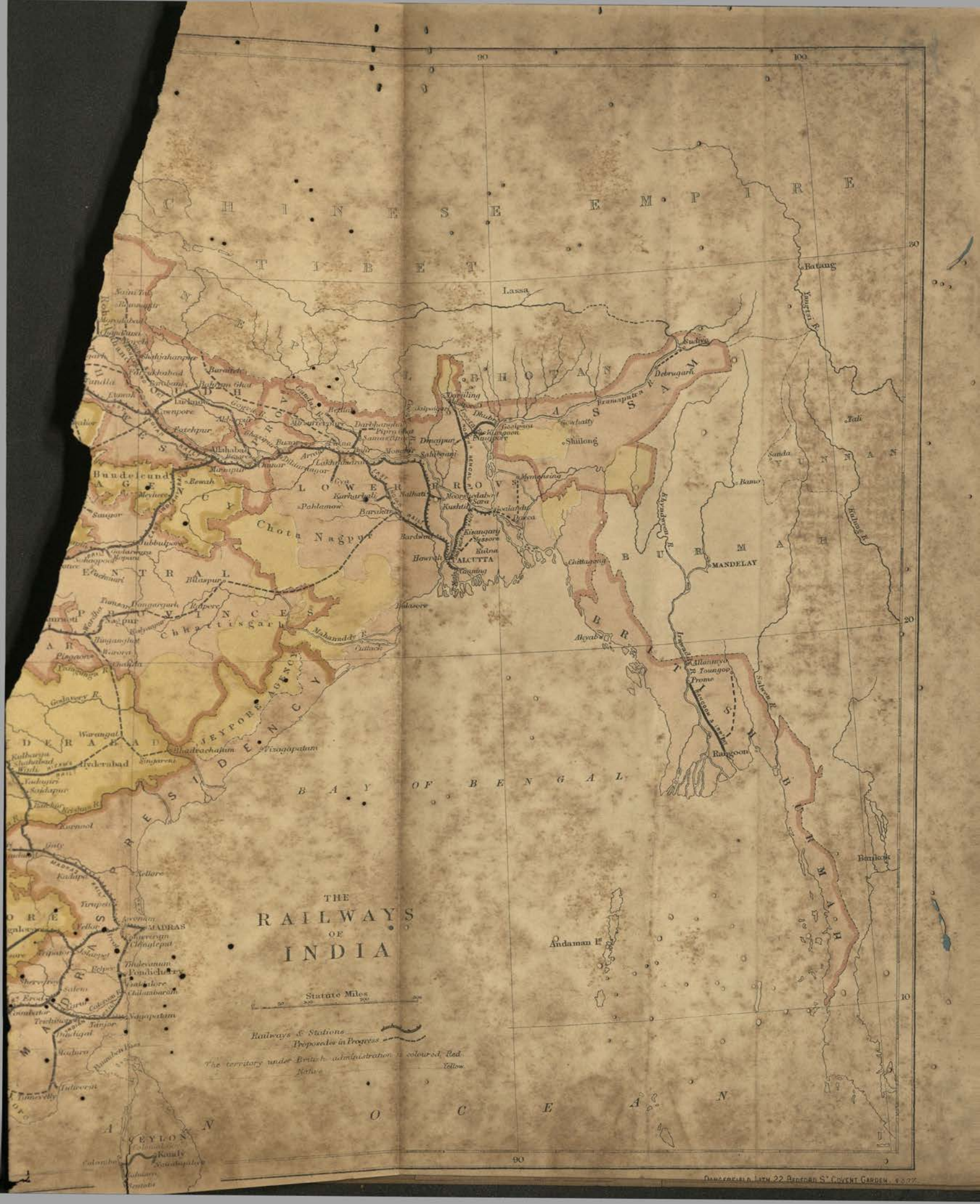
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BY JULAND DANVERS, ESQ.,
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1882.

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REPORT.

To the Most Honourable the MARQUIS OF HARTINGTON.

MY LORD MARQUIS, India Office, 30th June 1882.

I HAVE the honour to lay before your Lordship my Report on the progress and working of Railways in India for the year 1881–82.

General progress.

2. During the year 1881, 726¾ miles of new railway were completed and opened for traffic. The total length of line now sanctioned, and which is either finished or in course of construction, is 11,901¼ miles. The extent open for traffic is 9,875¼ miles.

Lines completed.

The recent additions have been 135 miles on the Malwa line, connecting Nasirabad with Nimach; 130 of the Punjab Northern beyond Rawalpindi to Attock and Khushalgarh respectively; 36¾ miles between Cawnpore and Farrukhabad; 45 miles of the Nagpur-Chhatisgarh line, and various other smaller extensions, which are specified in the table on page 6. If certain Native States progress has also been made with railway construction. The first section of the railway in Mysore, which will connect Bangalore with Mysore, was opened during the year, and 87½ miles were added to the Bhaunagar-Gondal State line in Kathiawar.

Lines under construction.

3. In various parts railway operations are being carried on with activity. Beginning with Bengal, the new bridge over the Hugli, which will connect the Eastern Bengal and the East Indian Railways, has been commenced, and the question of providing a central station in Calcutta suitable for the various lines which enter the city from different quarters is under consideration.

Branch to Diamond Harbour.

A branch from the Calcutta and South-Eastern Railway to Diamond Harbour is in course of execution, and docks are projected there.

Bengal Central.

The works on the Bengal Central Railway have been conducted with energy, and the Company expect to open sections between Calcutta and Barasat, and between Ranaghat on the Eastern Bengal Railway and Bangaon, in the course of the ensuing autumn.

Assam.

A commencement has also been made with railways in Upper Assam, where tea cultivation is extensively carried on. A line seventy-five miles in length has been undertaken by a Company with a subsidy from the Government, and fair progress has been made with it. The work consists of a line from Dibrugarh, a town on the Brahmaputra to which steamers run from Calcutta, to Sadiya, in Upper Assam, and of a branch of 24 miles, which will tap valuable coal beds. The Government undertake to grant the land and the use of existing roads, as well as certain concessions to cut timber for the purposes of the railway and to work the coal and iron over a limited area. They also agree to make up the earnings of the railway to 5 per cent. for twenty years by a contribution which is not to exceed Rs. 1,00,000 per annum. It is expected that the line will be completed in the course of 1883.

Line to Peshawar.

Attock Bridge.

4. The railway has been laid between Attock and Peshawar, and is now being used. Continuous railway communication between Calcutta and Peshawar has thus been established, with the exception of the crossing of the river Indus at Attock, the bridge at which place will, it is expected, be opened early next year. It consists of two spans of 300 feet and three spans of 250 feet. The railway is laid on the top of the girders, with a roadway, which is intended for ordinary traffic and artillery, on the bottom, 117 feet above the usual level of the river.

Line in Southern Afghanistan.

5. With regard to the line from the Indus Valley Railway at Ruk westward towards the Bolan Pass and Quetta, the terminus remains at Sibi. The works have been consolidated during the year, and means have been taken for storing water in the desert through which the line passes. The following testimony by Colonel W. S. Trevor, R.E., V.C., the present Secretary in the Public Works Department of the Government of India, to the value of this line during the war in Southern Afghanistan in 1880 is taken from his Administration Report:—"The saving of human life and suffering effected by the "railway in transporting the troops across the Kachi desert can hardly be over-"estimated. It is extremely doubtful if reinforcements could have been pushed over "this tract at the time of year (July and August) without its assistance. In any "case, the aid afforded by the line can best be gauged, perhaps, by bearing in mind "that one single railway train did do, with comparative ease, in one day of 16 hours "what it would have taken 2,500 camels to do in a fortnight." Colonel Sir Oliver St. John, late Resident, Southern Afghanistan, has borne testimony to the value of the line as a commercial route. The traffic has increased during the year both in passengers and goods. Wheat and wool are the principal articles of commerce.

Branch to East Indian.

6. A short light branch, six miles in length, from Baidyanath on the East Indian Railway to Deogarh, has been undertaken by a local Company without any pecuniary assistance from Government.

Tirhut Railways.

7. In Tirhut, an extension of the railway, 23 miles in length, has become necessary in consequence of the alterations in the condition of the river Ganges opposite Barrh, where new shoals are being rapidly formed and channels are silting up so as to make necessary constant changes in the line, which are both expensive and inconvenient. Other extensions of the railway system in this and the adjoining districts are contemplated. It has also been determined to proceed with a line north of the Gogra, commencing opposite Patna and extending to Bahraich in Oudh. This line will probably be taken over by a private Company. In the meanwhile, the works are being constructed under the direction of Government. Operations in connection with the Benares bridge over the Ganges are being vigorously carried on by the Oudh and Rohilkund Company, who are also proceeding with the extension of their system from Moradabad *viâ* Dhampur and Roorkee to join the Punjab and Delhi Railway at Saharanpur. A Company has entered into an agreement with the Government of India for undertaking a line from Bareilly to Ranibagh, at the foot of the Kumaun hills near Naini Tal. Its length is 65 miles, and it is estimated to cost 24 lacs of rupees. A guarantee of four per cent. for two years has been granted on a capital of 200,000*l.*, together with an annual subsidy of Rs. 40,000, for ten years after opening, and other concessions. In the Punjab, a line has just been commenced by the Government from Amritsar to Pathankot. It will be 65 miles in length, and will cost about 46 lacs.

Patna to Bahraich.

Benares Bridge.

Line between Moradabad and Saharanpur.

Bareilly and Naini Tal.

Amritsar and Pathankot.

Rewari to Firozpur.

8. A railway from Rewari, 50 miles south of Delhi on the Rajputana Railway, westward towards Firozpur, has also been put in hand, and will become part of the existing system of railways comprising the Rajputana-Malwa lines, which have formed the subject of negotiation with the promoters of a Company, with whom, however, no arrangement has yet been concluded.

Bundelkhand.

9. The province of Bundelkhand is at present destitute of railway communication, although much requiring it, if only as a preservative against the effects of drought. Complete surveys for a system of lines have been ordered. In the meanwhile, proposals have been made for forming a separate Company to construct a line in continuation of the one now being made from Itarsi to Bhopal, so as to extend it to Jhansi, and thence to Gwalior and Cawnpore respectively.

Bhopal to Cawnpore and Gwalior.

Southern Marhatta Railway.

10. Turning to the Bombay Presidency an important system of railways has been decided on for the Southern Marhattà Country in connection with the line which the Portuguese Government have arranged to make within their territories to the British frontier from the port of Mormugao. This system, which, at present, comprises a length of 450 miles, consists of a line from the Portuguese frontier to Bellary, where it will join the Madras Railway, a line from Sholapur on the Great Indian Peninsula Railway to Gadak, and branches to Belgaum and Bankapur. The primary object of these works is to provide a protection against famine, to which this part of India is exceptionally liable, but they will open up districts which have hitherto been much isolated and ill supplied with communications, and, by reducing the cost of transport to a twentieth of what it now is, will, with the help of irrigation, increase produce and promote trade. The works have been commenced by Government, but the whole scheme has lately been placed in the hands of a Company, under the title of the Southern Mahratta Railway Company, who have undertaken to raise the capital, estimated at 3,000,000*l.*, at 3½ per cent. interest, with a quarter share of net earnings, which share the Government for the first five years undertake to make up to a half per cent. The Company are expected to complete the lines in five years from the present time, and, if called upon by the Government, will ultimately extend the system by making branches to Karwar and Hurrihar, continuing the line from Belgaum to the Great Indian Peninsula Railway near Poona. It is possible that the section between Bellary and Hospett, 38 miles in length, will be opened early next year. A copy of the contract, as well as of the Despatch to the Government of India explaining the ground upon which this project was committed to private agency under a guarantee, is given in the Appendix.

Railways in the Nizam's territory.

11. A scheme has also been projected by the Government of His Highness the Nizam for extending the existing railway which now ends at Haidarabad to Warangal, and thence north to Chanda, and east to the Singareny coal fields. This would be a valuable addition to the railway system of India with which it would be connected, and would greatly promote the development of the mineral as well as agricultural resources of the Nizam's territory. The measures for carrying out the project have not yet been matured. The subject is still under consideration; and Abdul Hak, Sirdar Diler Jung Bahadoor, C.I.E., is now in this country as the accredited agent of the Nizam's Government, for the purpose of negotiating on their behalf.

12. Proceeding further south, a line has been projected to connect the Wainad district, where gold mining industry is now active, with the coast at Beypur; and the promoters of a Company have undertaken to make the necessary surveys. Terms have also been granted to a Company for raising capital to be applied to a line from Mettapollolliam on the Madras Railway to Coonoor on the Nilgiri Hills. It will be 12 miles in length, and is estimated to cost £31,650*l*. The gradients are necessarily heavy, and it is intended to construct and work the line on the Rigi system. Railway in the Wainad. Nilgiri Line.

13. Lines in connection with the South Indian Railway for the purpose of extending railway communication over the ghâts to Trivandrum and Quilon have been surveyed. A line from Shoranur on the Madras Railway to Cochin has likewise been proposed by a Company who were offered a certain amount of support by the Rajahs of Travancore and Cochin, through whose territory the line would pass. No arrangements have, however, been made for carrying out either project. Southern India. Travancore and Cochin.

14. In British Burma railway operations have been attended with marked success. Within four years from its completion, the Rangoon and Prome line has yielded profits at the rate of five per cent. per annum. A line from Rangoon to Toung-ngu has been sanctioned at an estimated cost of 1,169,827*l*. Its length will be 163½ miles, and fair progress has already been made with its construction. Burma.

15. Two important bridges have already been mentioned as being in course of construction, viz., that over the Ganges at Benares, and another over the Hugli, about 20 miles above Calcutta. The former was described in last year's Report. Operations in connection with it are being conducted with much energy by Mr. G. Walton, the Resident Engineer, under the direction of Mr. Hederstedt, the Chief Engineer of the Oudh and Rohilkund Railway. The latter, which has been designed by Mr. Rendel and Mr. Bradford Leslie, the Consulting and Chief Engineers of the East Indian Railway Company, will be 1,200 feet in length, consisting of a central cantilever about 360 feet in total length carried on two central piers 120 feet apart, and of two girders each resting one end on the shore and the other on the cantilever. The piers are 66 feet in length by 25 in breadth, and are sunk by caissons of iron to a depth below the maximum scour. The headway is to be 35 feet clear above high water. The girders will be of steel. The cost is estimated at 275,000*l*. Bridges. Benares. Hugli.

16. The crossing of the Indus by the Indus Valley Railway near Sukkur, which for some years has been under discussion, has also been decided on, but the design remains to be settled. The site fixed upon is a little below Sukkur. The advantages of the new site are that the bridge can be constructed with shorter spans for a less outlay. Eight spans of 240 feet each are now proposed, at a cost of about 27 lacs of rupees. Indus near Sukkur.

17. It will have been observed that some of the new lines above described, and some of those projected, are promoted by private Companies. Among them are the railway in Assam, the railway from Bhopal to Cawnpore and Gwalior, the Southern Mahratta Railway, railways in the Wainad, a line from Bareilly to the foot of the hills near Naini Tal, and one up to Coonoor on the Nilgiris. Some of these have received assistance from the Government in one shape or another, but negotiations are now going on with respect to the Bhopal, Cawnpore, and Gwalior line, and also to a line (now being made by Government) from Patna to Bahraich; and it is hoped that arrangements will soon be concluded by which the Companies concerned will undertake to construct them, and to raise the necessary capital without any guarantee from the State. In such cases a concession will probably be given for 99 years, and the Government will have the option to purchase at fixed periods on certain terms. This would be an important and satisfactory commencement of the application of private enterprise to Indian railways. One short line, six miles in length, branching from the East Indian Railway at Baidyanath, and proceeding to Deogarh, has already been taken in hand by private capitalists without any pecuniary assistance from Government, but this, while satisfactory so far as it goes, is only a small beginning, and scarcely furnishes a criterion of what may be done by private enterprise.

18. In connection with this subject, the question of further railway legislation in India must soon be considered. It is important that a general and uniform system of regulating railway affairs and keeping railway accounts should be established, and that the relations between Railway Companies, the community, and the State should be clearly defined for the guidance and protection of all. The attention of the Government of India has lately been drawn to the subject, with the view of early action being taken in the matter.

19. The following Table gives the length of each railway which had been sanctioned, completed, or was in course of construction or of survey at the close of 1881:—

Railway.	Gauge.	Length of Line sanctioned.	Length opened during 1881.	Total Length opened on 31st Dec. 1881.	Portion laid with Double Line.	Length remaining to be finished.
STATE LINE WORKED BY COMPANY.	Ft. In.	Miles.	Miles.	Miles.	Miles.	Miles.
East Indian	5 6	1,510½	—	1,504¼	410¼	6¼
GUARANTEED COMPANIES.						
Bombay, Baroda and Central India	5 6	421½	—	421½	23	—
Eastern Bengal	5 6	158¾	—	158¾	—	—
Great Indian Peninsula	5 6	1,288	—	1,288	324½	—
Madras	5 6	860¾	—	858	42½	2¾
Oudh and Rohilkund	5 6	686½	—	546¾	—	139¾
Sind, Punjab and Delhi — Punjab and Delhi	5 6	553¾	—	553¾	—	—
Sind, Punjab and Delhi — Sind	5 6	109¾	—	109¾	4½	—
South Indian	3 3⅜	653¼	8	653¼	—	—
Total, East Indian and Guaranteed Railways		6,242¾	8	6,094	804¾	148¾
ASSISTED COMPANIES.						
Assam (Light Railway)	3 3⅜	87	—	—	—	87
Bengal Central	5 6	129	—	—	—	129
Darjiling-Himalayan (*late* Darjiling Steam Tramway)	2 0	48¾	18¾	48¾	—	—
Baidyanath-Deogarh	3 3⅜	6	—	—	—	6
Bareilly-Ranibagh	3 3⅜	60	—	—	—	60
Nilgiri	3 3⅜	12	—	—	—	12
Total, Assisted Companies		342¾	18¾	48¾	—	294
STATE.						
Imperial.						
Punjab Northern	5 6	348	130	354¾	—	70½
	3 3⅜	77¼				
Indus Valley and Kandahar	5 6	654¼	—	653	—	1¼
Rajputana-Malwa	3 3⅜	1,219¾	284½	1,115¾	2¼	105½
	5 6	1				
Sindhia	5 6	74	8¼	74¾	—	—
Patri	5 6	22¾	—	22¾	—	—
Dhond-Manmád	5 6	145¾	—	145¾	—	—
Southern Mahratta*	3 3⅜	451	—	—	—	451
Total, *Imperial*		2,994¾	422¾	2,366½	2¼	628¼
Provincial.						
Bengal :—						
Calcutta and South-Eastern	5 6	56½	—	28	—	28½
Nalhati	4 0	27¼	—	27¼	—	—
Northern Bengal	5 6	13	23	266½	—	33½
	3 3⅜	252½				
and Kaunia Dhurla Tramway	2 6	34½				
Tirhut	5 6	3	—	85	—	167
	3 3⅜	249				
Patna-Gaya	5 6	147	—	57	—	90
North-West Provinces and Oudh :—						
Muttra-Hathras-Achnera	3 3⅜	53	24	53	—	—
Cawnpore-Farrukhabad	3 3⅜	196	36¾	86	—	110
Dildarnagar-Ghazipur	5 6	12	—	12	—	—
Punjab :—						
Amritsar-Pathankot	5 6	65	—	—	—	65
Central Provinces :—						
Wardha Coal	5 6	46½	—	46½	—	—
Nagpur and Chhatisgarh	3 3⅜	263¾	45	98	—	165¾
British Burma :—						
Rangoon and Irawadi Valley	3 3⅜	203	—	161	—	42
Rangoon and Tsit-toung Valley	3 3⅜	163½	—	—	—	163½
Total, *Provincial*		1,785½	128¾	920¼	—	865¼
NATIVE STATES.						
Bhopál	5 6	62	—	—	—	62
Bhaunagar-Gondal	3 3⅜	192½	87½	192½	—	—
Gaekwar of Baroda's	2 6	60¼	3	60¼	—	—
Berar — Amraoti	5 6	6	—	6	—	—
Berar — Khamgaon	5 6	8	—	8	—	—
Nizam's	5 6	121	—	121	—	—
Mysore	3 3⅜	85¾	58	58	—	27¾
Total, *Native States*		535½	148½	443¾	—	89¾
SUMMARY.						
East Indian and Guaranteed Lines		6,242¾	8	6,094	804¾	148¾
Assisted Lines		342¾	18¾	48¾	—	294
State — Imperial		2,994¾	422¾	2,366½	2¼	628¼
State — Provincial		1,785½	128¾	920¼	—	865¼
Native States		535½	148½	443¾	—	89¾
Total for all Railways		11,901¼	726¾	9,875¼	807	2,026

* Now to be constructed by a Company.

The following STATEMENT shows the Annual Progress made in the Construction of Railways in India since their commencement.

Railways.	Length of Line open at the end of each Year.																											
	1853.	1854.	1855.	1856.	1857.	1858.	1859.	1860.	1861.	1862	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.
GUARANTEED.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Bombay, Baroda and Central India	—	—	—	—	—	—	—	35	134	167½	185	305¾	305¾	305¾	305¾	306¾	307⅓	312½	340¾	389½	389½	406	407¾	416¾	421½	421½	421½	421½	421½
Eastern Bengal	—	—	—	—	—	—	—	—	—	109¾**	109¾	109¾	109¾	109¾	109¾	112	112	112	157	157	157	159	158¾††	159	159	159	158¾††	158¾	158¾
East Indian	—	37¾	120½	120½	120½	139½	286½	370½	560¾	877½	933	1,104	1,127½	1,127½	1,353	1,353	1,353	1,353	1,503½	1,503½	1,503½	1,503½	1,503½	1,503½	1,503½	1,503½	1,504½	1,504½	1,504½
Great Indian Peninsula	20½	33½	49½	87½	87½	193½	244½	297	437¾	495	552¾	585¼	701½	815½	852¼	873½	873½	1,258½	1,273½	1,278½	1,278½	1,278½	1,278½	1,278½	1,280½¶	1,280½	1,287¼§§	1,288	1,288
Madras	—	—	—	65	80½	95½	95½	137	296¾	447½	447½	570	609½	643¾	643¾	675¾	705½	781½	830½	830½	858	858	858	858	858	857††	857	858‖‖	858
Oudh and Rohilkund	—	—	—	—	—	—	—	—	—	—	—	—	—	—	42	42	42	42	42	293½	456½	540½	543¾	543¾	543¾	546¾	546¾	546¾	546¾
Sind, Punjab and Delhi — Delhi	—	—	—	—	—	—	—	—	—	—	—	—	—	—	53½	53½	272½	303¾	553¾	553¾	553¾	553¾	553¾	553¾	553¾	553¾	553¾	553¾	553¾
Sind, Punjab and Delhi — Punjab	—	—	—	—	—	—	—	—	—	32	45‖	45	253	253	246	246	246	250											
Sind, Punjab and Delhi — Sind	—	—	—	—	—	—	—	—	109¾	109¾	109¾	109¾	109¾	113	113	113	113	113	113	109¾	109¾	109¾	109¾	109¾	109¾	109¾	109¾	109¾
South Indian — Great Southern of India	—	—	—	—	—	—	—	—	48¾	82	82	82	82	126½	143½	167	167	167	167	167	167	185¾	281¼	474¼	599½	612½	633	653½	653½
South Indian — Carnatic§	—	—	—	—	—	—	—	—	—	—	—	—	18¾	18¾	18¾	18¾	18¾	18¾	18¾	18¾	18¾								
Totals for Guaranteed Railways	20½	71	170	272½	288½	428½	626½	839½	1,587¾	2,320½	2,464½	2,911½	3,317½	3,513½	3,881½	3,961	4,209½	4,711½	5,008½	5,201	5,491½	5,594½	5,695	5,897	6,029	6,044	6,072½	6,094	6,094
STATE AND OTHERS.																													
Amraoti	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	6	6	6	6	6	6	6	6	6	6
Bhaunagar Gondal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	105	192½	
Calcutta and South-Eastern	—	—	—	—	—	—	—	—	—	15	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Cawnpore and Farrukhabad	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49½	86	
Gaekwar of Baroda's	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20	20	20	20	20	20	40½	56½	60½
Darjiling-Himalayan¶¶	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30	48¾	
Dhond-Manmad	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	145	145	145¾	145¾	
Dildarnagar-Ghazipur	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12	12	
Holkar and Sindhia-Nimach	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	37	57	107½	107½	171½	171½	254½	***
Indus Valley	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	501	501	501	653
Kandahar	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	152	
Khamgaon	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	8	8	8	8	8	8	8	8	8	8	8
Muttra-Hathras	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	29	29	29	29	29	29	53
Mysore	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	58
Nagpur and Chhatisgarh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	53	98
Nalhati	—	—	—	—	—	—	—	—	—	—	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½
Nizam's	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	121	121	121	128	121	121	121	121
Northern Bengal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	134½	232	242½	243¾	266½
Patna-Gaya	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	57	57	57
Patri	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	22½	22½	22½	22½	22½	22½	22½	22½	22½
Punjab Northern	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	62	103½	103½	103½	103½	224½	354½
Rajputana ***	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	91½	292	379¾	400	400	432½	550½	717½	1,115½
Rangoon and Irawadi Valley	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	161	161	161	161	161
Sindhia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	34	66½	66½	74½
Tirhut	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	53*	45	45	79	79†	85	85	85
Wardha Coal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18½	18½	18½	46½	46½	46½	46½††	46½
Totals for State Railways	—	—	—	—	—	—	—	—	—	15	55½	55½	55½	55½	55½	55½	55½	63½	69½	69½	203½	633½	824	936	1,293½	2,167½	2,411½	3,203½	3,781½
Totals for all Railways	20½	71	170	272½	288½	428½	626½	839½	1,587¾	2,335½	2,520	2,967	3,373	3,569	3,936½	4,016½	4,265	4,775½	5,077½	5,370½	5,695	6,227½	6,519	6,833	7,322½	8,211½	8,484½	9,297½	9,875½

* A temporary line (53 miles) was constructed in 1874 for the conveyance of grain to the famine districts.
† The old Ganges bank station, about one mile from Bajitpur, was shifted, on 23rd December 1878, to a point seven miles further up the river and immediately opposite Barh-Ghat. This portion of the line is temporary; the extension to a more permanent ghat has recently been sanctioned.
‡ Half a mile of the Main Line at Goalanda, which was abandoned in September 1875 on account of erosion in the river bank, was relaid in 1876; thus on 31st December 1875 the open length was less than that on the same date in 1874.
§ This line was called the "Conjeveram Tramway" until 1869.
‖ In 1863, a length of 13 miles from Multan to the river bank at Sher Shah was opened, but owing to the river silting up its bed at this Ghat, the Sher Shah section was abandoned in favour of a branch to Rajghat.
¶ The difference in lengths is owing to the Main and Nagpur Lines from Bhusawal being now treated as two single lines, instead of one double, to point of divergence.
** Includes the length (1¾ miles) from Jagati Junction to Kushtia engine shed.
†† This has been found, after re-measurement, to be the correct mileage.
‡‡ A quarter of a mile of this line has been utilised for the junction with the Port Trust Tramway.
§§ Additional length caused by the reopening of the Campuli Branch, after closure since 1872.
‖‖ The length of the Bellary Branch has been found, on re-measurement, to be 31½ miles, and not 30½ miles as shewn heretofore.
¶¶ Private enterprise project. Originally called the Darjiling Tramway.
*** The mileage of the Holkar and Sindhia-Nimach line is included with that of the Rajputana Railway, now known as the Rajputana-Malwa system.

20. The following statement shows the number of persons holding investments in Indian Railway securities on the 31st December last. Compared with the previous year there is a decrease of 461.

Railway.	Number of Shareholders on 31st December 1881.						Number of Debenture Holders.		Total Number of Proprietors on the 31st December 1881.
	Registered in England.			Registered in India.					
	With Stock or Shares to the amount of 1,000*l.* and upwards.	With Stock or Shares of less amount than 1,000*l.*	Total Number in England.	Europeans.	Natives.	Total Number in India.	Bonds.	Stock.	
GUARANTEED.									
Bombay, Baroda and Central India -	2,457	3,854	6,311	10	31	41	39	—	6,391
Eastern Bengal - -	711	1,088	1,799	7	16	23	29	244	2,095
Great Indian Peninsula -	5,930	7,875	13,805	33	92	125	131	1,611	15,672
Madras - - -	3,196	4,426	7,622	—	—	—	402	—	8,024
Oudh and Rohilkund -	1,167	1,514	2,681	19	20	39	—*	180	2,900
Sind, Punjab and Delhi - - -	3,648	5,138	8,786	32	7	39	—	—	8,825
South Indian - -	993	1,499	2,492	No register in India.			45	153	2,690
Totals - -	18,102	25,394	43,496	101	166	267	646	2,188	46,597
ASSISTED.									
Bengal Central - -	217	232	449	—	—	—	—	—	449

* Not known.

EAST INDIAN RAILWAY DEFERRED ANNUITY HOLDERS, &c., on 31st December 1881.

Railway.	Deferred Annuity Holders on 31st December 1881. (Registered in England.)			Number of Holders of Debenture Bonds.	Number of Holders of Debenture Stock.	Total Number of Proprietors.
	With Annuity Stock to the amount of 1,000*l.* and upwards.	With Annuity Stock of less amount than 1,000*l.*	Total Number.			
East Indian - -	1,593	3,033	4,626	96	886	5,608

SHIPPING OPERATIONS.

21. The following tables relate to shipments of stores and fuel for the railways in 1881. It will be observed that the average rates which were given in former Reports have been omitted from this. The reason is that averages on such a matter often prove deceptive. Freight charges depend so much upon the character of the cargo, the port of shipment, the season of the year, the condition of trade, and other circumstances, that for purposes of comparison the average rate, for any lengthened period, becomes useless. Although I endeavoured to guard against their acceptance as a guide by a prefatory remark in my last Report, the figures then given have produced criticisms which show that they were misleading.

22. During the past year, instead of prices being regulated by the law of supply and demand, a healthy competition has, to a certain extent, been checked by combination. The consequence has been that the system of advertising for freights failed to test the natural condition of the market, and artificial prices prevailed.

SHIPPING OPERATIONS, exclusive of Fuel, during 1881, on account of Guaranteed and State Railways.

Port.	Railway.	Route.	*Number of Ships employed.	Number of Tons of Goods shipped.	Value of Goods shipped.	Amount paid for Freight and Insurance.
				Tons.	£	£
To Calcutta	East Indian	*vid* Suez Canal.	50	7,597	103,913	9,626
		vid Cape of Good Hope.	45	32,856	335,237	40,571
	GUARANTEED.					
	Eastern Bengal	Canal	9	2,242	6,236	†1,743
		Cape	5	67	1,751	72
	Oudh and Rohilkund	Canal	30	7,085	128,206	7,328
		Cape	9	1,705	24,840	1,409
	STATE	Canal	49	4,220	29,227	‡3,909
		Cape	14	4,195	24,766	‡3,220
	Calcutta Totals		211	59,967	654,176	67,878
To Bombay	GUARANTEED.					
	Bombay, Baroda and Central India.	Canal	87	§13,791	120,949	(*a*) 4,570
		Cape	—	—	—	—
	Great Indian Peninsula.	Canal	64	30,918	227,558	32,748
		Cape	—	—	—	—
	STATE	Canal	72*	16,639	256,622	‡19,842
		Cape	6	219	4,272	‡204
	Bombay Totals		229	61,567	609,401	57,364
To Madras	GUARANTEED.					
	Madras	Canal	33	7,253	65,968	10,528
		Cape	1	1,270	7,526	1,553
	South Indian	Canal	13	221	5,277	494
		Cape	9	3,006	29,597	3,678
	STATE	Canal	23	3,322	30,331	‡4,436
		Cape	2	146	2,597	‡208
	Madras Totals		81	15,218	141,296	20,897
To Karachi	GUARANTEED.					
	Sind, Punjab and Delhi	Canal	38	6,793	75,165	8,919
		Canal‖	27	5,493	99,917	12,023
		Cape	—	—	—	—
	STATE	Canal	47	19,564	330,927	‡31,660
		Cape	—	—	—	—
	Karachi Totals		112	31,850	506,009	52,602
To Rangoon	STATE	Canal	13	3,538	28,402	‡3,345
		Cape	1	28	856	‡52
	Totals for all Ports		647	172,168	1,940,140	202,138

* Probably these numbers include ships which have been employed by different Companies (and perhaps by Government also) on the same voyage.

† Includes freight paid in Calcutta.

‡ These figures do not include insurance. Except in special cases, Government do not insure.

§ 8,418 tons contracted for delivery in Bombay, and cost of freight not therefore included in (*a*).

‖ Shipments by Sind, Punjab and Delhi Railway Company, on account of the Indus Valley State Railway.

AMOUNT and Cost of Fuel sent from this Country in 1881 for Guaranteed and State Railways.

Railway.	1. Number of Tons supplied from England.			2. Total original Cost (exclusive of Freight).			3. Sum paid for Freight and Insurance.		4. Total Cost, including Freight and Insurance.
	Of Coal.	Of Coke.	Of Patent Fuel, &c.	Of Coal.	Of Coke.	Of Patent Fuel, &c.	*Vid* Canal,	*Vid* Cape.	(Total of Cols. 2 & 3.)
	Tons.	Tons.	Tons.	£	£	£	£	£	£
East Indian	- -	- -	No fuel sent out from this country.						—
GUARANTEED:									
Bombay, Baroda and Central India	49,377	149	—	*67,803	222	—	‡—	‡—	68,025
Eastern Bengal	- -	- -	No fuel sent out from this country.						
Great Indian Peninsula	112,573	—	4,282	51,535	—	2,029	30,372	84,578	168,514
Madras	986	—	6,081	333	—	2,585	4,561	2,355	9,834
Oudh & Rohilkund	- -	- -	No fuel sent out from this country.						
Sind, Punjab and Delhi	1,500	99	1,855	§2,215	§253	§2,690	—	—	5,158
South Indian	‖13,500	—	—	6,956	—	—	11,965	—	18,921
STATE RAILWAYS	1,864	—	908	*3,286	—	420	†990	—	4,696
Totals	179,800	248	13,126	131,228	475	7,724	47,888	86,933	274,248

* Includes freight.
§ Include freight and insurance.
† Freight of patent fuel only.
‡ Included in price of coal.
‖ 1,883 tons of coal were also obtained by this Company from Australia.

23. The following statement gives the shipments from the commencement of operations, and the cost of the goods shipped for both Guaranteed and State Railways:—

Period.	Number of Ships employed.*	Number of Ships lost.	Number of Tons of Goods shipped.	Amount paid in England for Goods shipped.
				£
Up to end of 1860	2,605	39	2,094,686	10,431,976
In 1861	407	—	181,621	1,669,443
„ 1862	280	1	138,013	1,487,582
„ 1863	279	2	166,840	1,285,464
„ 1864	233	—	102,318	1,018,164
„ 1865	442	2	199,157	1,729,543
„ 1866	581	7	312,227	2,527,757
„ 1867	512	5	333,329	3,052,652
„ 1868	364	3	188,858	1,849,554
„ 1869	455	1	211,750	1,432,784
„ 1870	461	1	263,449	1,688,209
„ 1871	307	6	168,049	707,765
„ 1872	318	1	66,534	655,822
„ 1873	404	2	201,590	1,561,602
„ 1874	426	5	265,114	2,042,136
„ 1875	421	—	288,186	1,518,991
„ 1876	587	—	296,801	1,701,487
„ 1877	539†	5	458,482‡	1,918,539§
„ 1878	582†	2	349,142‡	2,104,252§
„ 1879	518†	3	361,353‡	1,691,811§
„ 1880	660†	1	430,107‡	2,439,549§
„ 1881	647†	8	365,342‡	2,079,567§
Totals	12,028	94	7,442,948	46,594,649

* These numbers probably include ships which have been employed by two or more Companies at the same time.
† Exclusive of ships conveying coal and other fuel.
‡ Includes coal and fuel tonnage.
§ Includes, in a few cases, freight, &c., of fuel and of some other small items.

PERSONS EMPLOYED.

24. The statements in the following pages furnish detailed information as to the number of persons employed in the different departments of the railways. Europeans, East Indians, and Natives are shown separately, and it will be seen that of the total number of 169,577, there were 162,043 Natives, 3,763 Europeans, and 3,771 East Indians. The Natives thus formed 95·6 per cent. of the whole, the Europeans and East Indians being each 2·2 per cent. In the previous year the numbers were 155,734 persons, the proportions being about the same. The mileage to which these apply has increased from 8,817½ to 9,518⅝, and the number of stations from 1,138 to 1,252. The average number employed per mile of open line is 17·8 compared with 18 of the previous year. Numbers employed.

25. The casualties by death, resignation, and discharge among the Europeans during the year ended the 30th September 1881 were 23·8 per cent. compared with 30·5 of 1880, and 27·3 of the previous year. Among the East Indians the total casualties were 23·6 per cent. compared with 25·9 of 1880, and 29·4 of the previous year. Casualties.

26. The subject of employing Natives as engine drivers and firemen is receiving continued attention, and every year establishes fresh proof that, with proper training and practice, they may be safely and advantageously placed in those positions. In various parts of India schools have been established for instructing Natives in the necessary mechanical knowledge to qualify them for employment as foremen in the shops and in the locomotive department of the railways. Employment of Natives.

27. In my last Report I alluded to the successful efforts which had been made by Mr. Campbell, the Locomotive Superintendent of the East Indian Railway, to promote the employment of Natives as drivers, by giving them a special training in technical schools established in connection with that line. The progress made in this work continues to be very satisfactory. Mr. Campbell reports that "the average daily "attendance has increased from 468 to 550. The education imparted is sufficient to "enable the adults employed on the railway to read and understand for themselves "the notices, orders, and rules that are issued in the vernacular for their information "and guidance, and to qualify the sons of Native mechanics for the different situations "in the Department when they become of age to work." The number of Native drivers on the East Indian Railway in December last was 114; there were also 116 Native shunters and 729 firemen. The number of European drivers was 230, and of European shunters and firemen 20 and 61 respectively; so that, out of a total of 1,270 employés, 959 were Natives, by which it is estimated that a saving at the rate of Rs. 4,92,000 per annum is effected. On the Oudh and Rohilkund Railway, similar efforts have been equally successful. Mr. Buckland, the Locomotive Superintendent, reports that "there has been a decided improvement in the education of shunters and drivers," and that "their working has given satisfaction in every respect." The number has increased from 57 in 1880 to 66. On other lines the movement is going on, although not so rapidly as on the two just mentioned. On the Great Indian Peninsula Railway there are 39 Native drivers employed; on the Sind, Punjab and Delhi, 38; and the Locomotive Superintendent of the South Indian Railway reports that 26 Native drivers are giving satisfaction, and are progressing in a practical acquaintance with the machinery of locomotives. East Indian Railway. Oudh and Rohilkund.

28. The reports of the Volunteer Corps continue to be satisfactory, and to show that an efficient body of European Railway employés are ready for any emergency. Volunteer Corps.

NUMERICAL RETURN of CASUALTIES, whether by Death, Resignation and Discharge and Dismissal, among the European

Railways.	General Administration, including Agency, Audit, Account, Paymaster's, Stores, Medical, Barrack, Printing, Stationery, and Police Establishments.										Traffic and Telegraph Departments.										Engineer's				
	Europeans.					East Indians.					Europeans.					East Indians.					Europeans.				
	Average Number employed.	Number of Casualties by				Average Number employed.	Number of Casualties by				Average Number employed.	Number of Casualties by				Average Number employed.	Number of Casualties by				Average Number employed.	Number of Casualties by			
		Death.	Resignation and Discharge.	Dismissal.	Total.		Death.	Resignation and Discharge.	Dismissal.	Total.		Death.	Resignation and Discharge.	Dismissal.	Total.		Death.	Resignation and Discharge.	Dismissal.	Total.		Death.	Resignation and Discharge.	Dismissal.	Total.
Government of India:																									
East Indian (including the State Lines worked by the Company).	70	2	1	—	3	42	1	7	2	10	307	4	37	5	46	234	4	37	16	57	76	2	6	4	12
Eastern Bengal (including Poradaha Branch of Northern Bengal State Railway.	12·33	—	1	—	1	0·50	—	1	—	1	†55·50	2	16	6	24	‡30·75	1	16	6	23	11	—	5	1	6
Oudh and Rohilkund	27·51	1	3	—	4	22	—	1	1	2	48·08	2	7	4	13	15·87	—	—	1	1	19·92	—	3	1	4
Sind, Punjab and Delhi (including Indus Steam Flotilla).	54·08	1	16	2	19	18·16	—	4	—	4	233	2	22	38	62	56	2	9	15	26	38·83	1	4	1	6
Punjab Northern	3·25	—	4	—	4	1·75	—	5	—	5	50	4	18	12	34	68	6	32	29	67	6·12	—	—	5	5
Indus Valley and Kandahar	32	1	2	—	3	15·50	—	5	1	6	9·43	3	12	8	23	100·59	3	23	9	35	59·10	2	14	4	20
Government of Madras:																									
Madras	18·58	—	1	—	1	50	—	1	2	3	49·92	1	5	3	9	386·41	2	21	5	28	31	—	1	—	1
South Indian	11	—	1	—	1	24	—	—	1	1	20	—	1	—	1	64·10	—	6	15	21	10	—	2	—	2
Government of Bombay:																									
Great Indian Peninsula (including Dhond-Manmad and Berar State Railways).	36	1	—	—	1	29	1	2	2	5	294	4	36	5	45	220	2	29	6	37	64	1	11	1	13
Bombay, Baroda and Central India (including Patri State Branch).	15	1	—	—	1	29	1	1	—	2	14	—	—	—	—	28	—	6	—	6	16	—	1	—	1
Rajputana	26	2	3	—	5	24·83	1	7	2	10	36	1	4	2	7	49	—	9	12	21	46·60	—	3	1	4
Western Rajputana																									
Holkar and Sindhia-Nimach	10	—	—	—	—	7·16	—	—	—	—	22	—	3	1	4	50	—	10	4	14	8·42	—	1	—	1
Bhaunagar-Gondal	6	—	1	—	1	4	—	1	—	1	5	—	3	—	3	10	—	5	4	9	10	—	—	—	—
Gaekwar's	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
Government of Bengal:																									
Calcutta and South-Eastern	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nalhati	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	—	—	—	—
Northern Bengal	5	—	—	—	—	2	—	—	—	—	4	—	—	—	—	12	—	1	3	4	6·25	—	—	—	—
Northern Bengal Steam Ferry	—	—	—	—	—	—	—	—	—	—	2·25	—	3	1	4	2·50	—	2	1	3	—	—	—	—	—
Tirhut	4	—	—	—	—	2*	—	2	—	2	5	—	—	—	—	6	—	2	1	3	2	—	—	—	—
Tirhut Steam Ferry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Patna-Gaya	—	—	—	—	—	—	—	—	—	—	4	—	—	—	—	5	—	2	—	2	2	—	—	—	—
Government of North-Western Provinces and Oudh:																									
Muttra-Hathras	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cawnpore-Farrukhabad	3·40	—	1	—	1	4·10	—	1	—	1	1·70	—	—	—	—	3·20	—	4	1	5	4	—	—	—	—
Central Provinces:																									
Wardha Coal	6	—	—	1	1	5	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—
Nagpur and Chhatisgarh	1	—	—	—	—	2·58	—	—	—	—	2·92	—	2	—	2	10·75	—	2	—	2	2	1	—	—	1
British Burma:																									
Rangoon and Irawadi Valley.	8	—	—	—		21	—	10	6	16	22	1	8	3	12	100	—	15	16	31	4	—	—	—	—
Haidarabad:																									
Nizam's	3·92	1	—	—	1	9·83	—	—	3	3	4	—	—	—	—	22	—	—	5	5	3	—	—	—	—
Mysore:																									
Mysore§	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	353·07	10	34	3	47	314·41	4	48	20	72	1,140·80	24	177	88	289	1,478·17	20	231	149	400	422·24	7	50	18	75

* Employed on both the Tirhut and Patna and Gaya State Railways. † Includes one European of the Landing and Shipping Department.
‡ Includes 3 East Indians of the Landing and Shipping Department. § Return not received.

and East Indian Employés on the Railways open for Traffic in India during the Year ended 30th September 1881.

Department. — East Indians. — Average Number employed.	Number of Casualties by — Death.	Resignation and Discharge.	Dismissal.	Total.
28	—	1	1	2
2·50	—	1	—	1
7·50	—	—	—	—
16·16	1	1	—	2
2·17	—	—	4	4
19·51	1	8	3	12
31·25	1	12	—	13
30	—	5	1	6
19	—	—	1	1
4	—	—	—	—
11·30	—	5	2	7
3·25	—	—	—	—
2	—	—	—	—
1	—	—	—	—
1	—	—	—	—
—	—	—	—	—
2	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
1	—	—	—	—
—	—	—	—	—
2	—	—	—	—
4	—	—	1	1
13	—	—	—	—
1·33	—	—	1	1
—	—	—	—	—
250·47	3	33	14	50

Locomotive and Carriage and Wagon Departments, including Steamboat Establishment. — Europeans. — Average Number employed.	Number of Casualties by — Death.	Resignation and Discharge.	Dismissal.	Total.
460	7	43	8	58
67*	3†	21‡	13§	37
64·16	3	11	1	15
199	7	74	18	99
94·50	5	29	20	54
141	4	25	31	60
92	1	9	3	13
40·07	—	4	3	7
396	6	51	4	61
68	5	9	7	21
134	1	35	8	44
52	—	5	3	8
13	—	3	2	5
—	—	—	—	—
—	—	—	—	—
2	—	—	—	—
28	—	4	3	7
—	—	—	—	—
7	—	—	1	1
—	—	—	—	—
4	—	—	—	—
1	—	—	—	—
3	1	—	1	2
2	—	—	—	—
24	—	3	5	8
7	—	—	1	1
—	—	—	—	—
1,920·73	43	329	134	506

Locomotive and Carriage and Wagon Departments, including Steamboat Establishment. — East Indians. — Average Number employed.	Number of Casualties by — Death.	Resignation and Discharge.	Dismissal.	Total.
235	4	19	1	24
41·33	—	10	4	14
34·91	—	4	—	4
74	1	23	6	30
29·40	—	12	9	21
41	—	9	15	24
461	—	8	8	16
239·40	2	14	18	34
192	—	67	2	69
194	1	55	12	68
159	2	31	4	37
24	—	4	3	7
2	—	1	1	2
—	—	—	—	—
2	—	—	—	—
27	—	6	3	9
—	—	—	—	—
9	—	—	—	—
3	—	—	—	—
5	—	1	—	1
5	—	4	2	6
4	—	1	—	1
19	1	1	—	2
34	—	7	3	10
21	1	—	6	7
—	—	—	—	—
1,796·04	12	276	98	386

Total. — Europeans. — Average Number employed.	Number of Casualties by — Death.	Resignation and Discharge.	Dismissal.	Total.
913	15	87	17	119
145·83	5	43	20	68
159·67	6	24	6	36
424·91	11	116	59	186
153·87	9	51	37	97
291·53	10	53	43	106
191·50	2	15	6	23
81·07	—	8	3	11
790	12	98	10	120
113	6	10	7	23
242·60	4	45	11	60
92·42	—	9	4	13
34	—	7	2	9
1	—	—	—	—
—	—	—	—	—
2	—	—	—	—
43·25	—	4	3	7
2·25	—	3	1	4
18	—	—	1	1
—	—	—	—	—
10	—	—	—	—
2	—	—	—	—
12·10	1	1	1	3
8	—	1	1	2
27·92	1	4	2	7
58	1	11	8	20
17·92	1	—	1	—
3,836·84	84	590	243	917

Total. — East Indians. — Average Number employed.	Number of Casualties by — Death.	Resignation and Discharge.	Dismissal.	Total.
539	9	64	20	93
75·08	1	28	10	39
80·28	—	5	2	7
164·32	4	37	21	62
101·32	6	49	42	97
176·60	4	45	28	77
918·66	3	42	15	60
357·50	2	25	35	62
460	3	98	11	112
255	2	62	12	76
244·13	3	52	20	75
84·42	—	14	7	21
18	—	7	5	12
1	—	—	—	—
3	—	—	—	—
1	—	—	—	—
48	—	7	6	13
2·50	—	2	1	3
17	—	4	1	5
3	—	—	—	—
10	—	3	—	3
1	—	—	—	—
12·30	—	9	3	12
12	—	—	1	1
36·33	1	3	1	5
168	—	32	25	57
54·66	1	—	15	16
—	—	—	—	—
3,839·10	39	588	281	908

Mean Mileage Open.	Railways.
	Government of India:
1,591⅛	East Indian (including the State Lines worked by the Company).
172½	Eastern Bengal (including Poradaha Branch of Northern Bengal State Railway).
546¾	Oudh and Rohilkund.
671	Sind, Punjab and Delhi (including Indus Steam Flotilla).
362¾	Punjab Northern.
641	Indus Valley and Kandahar.
	Government of Madras:
858	Madras.
662½	South Indian.
	Government of Bombay:
1,403½	Great Indian Peninsula (including Dhond-Manmad and Berar State Railways).
444	Bombay, Baroda and Central India (including Patri Branch).
664½	Rajputana. / Western Rajputana.
274	Holkar and Sindhia-Nimach.
119½	Bhaunagar-Gondal.
58½	Gaekwar's.
	Government of Bengal:
28	Calcutta and South-Eastern.
27½	Nalhati.
233	Northern Bengal.
—	Northern Bengal Steam Ferry.
82	Tirhut.
—	Tirhut Steam Ferry.
57	Patna-Gaya.
	Government of North-Western Provinces and Oudh:
29	Mutra-Hathras.
86	Cawnpore-Farrukhabad.
	Central Provinces:
45	Wardha Coal.
56½	Nagpur and Chhatisgarh.
	British Burma:
161	Rangoon and Irawadi Valley.
	Haidarabad:
121	Nizam's.
	Mysore:
—	Mysore.‖
9,395⅝	Total.

* Includes 21 of the steamboat establishment. † Includes one of the steamboat establishment. ‡ Includes 11 of the steamboat establishment.
§ Includes 6 of the steamboat establishment. ‖ Return not received.

Numerical Return of all Races employed on open Lines of Railway and on the River Steamer Services worked thereby on the 30th September 1881.

Railways.	General Administration, including Agency, Audit, Account, Paymasters, Stores, Medical, Barrack, Printing, Stationery, and Police Establishment.				Traffic and Telegraph Departments.				Engineer's Department.				Locomotive and Carriage and Wagon Departments, including Steamboat Establishment.				Total.				Number of Miles Open.	Number of Stations.
	Europeans.	East Indians.	Natives.	Total.	Europeans.	East Indians.	Natives.	Total.	Europeans.	East Indians.	Natives.	Total.	Europeans.	East Indians.	Natives.	Total.	Europeans.	East Indians.	Natives.	Total.		
Government of India:																						
East Indian (including the State lines worked by the Company)	74	44	3,571	3,686	315	234	10,081	10,630	82	27	15,795	15,904	468	247	11,308	12,023	939	549	40,755	42,243	1,591⅓	169
Eastern Bengal (including Paradaha Branch of Northern Bengal State Railway)	12	—	460	472	61	37	2,521	(a) 2,619	9	(b) 5	(c) 1,501	1,515	73	33	1,965	2,076	155	80	5,447	6,682	172⅓	36
Oudh and Rohilkund	25	22	719	766	46	18	1,250	1,314	19	7	4,246	4,272	53	51	3,621	3,725	143	98	9,836	10,077	546⅓	80
Sind, Punjab and Delhi (including Indus Steam Flotilla)	62	27	1,012	1,101	125	62	2,891	3,078	39	17	5,478	5,534	188	71	4,633	4,892	414	177	14,014	14,605	676	86
Punjab Northern	13	8	168	189	45	62	1,324	1,431	22	6	509	537	94	31	1,335	1,460	174	107	3,336	3,617	367⅓	57
Indus Valley and Kandahar	30	15	340	385	43	33	1,286	1,417	46	16	3,279	3,341	86	21	2,254	2,361	210	135	7,159	7,504	641	64
Government of Madras:																						
Madras	38	50	543	611	50	375	2,132	2,557	31	89	4,099	4,219	94	407	2,847	3,348	193	921	9,621	10,735	858	109
South Indian	10	23	285	318	21	67	1,628	1,716	10	30	2,819	2,859	43	236	2,131	2,410	84	356	6,863	7,303	662⅓	102
Government of Bombay:																						
Great Indian Peninsula (including Khond-Manmad and Berar State Railways)	36	29	1,134	1,199	307	206	4,770	5,283	58	20	16,177	16,255	391	197	9,221	9,809	792	452	31,302	32,546	1,439⅓	179
Bombay, Baroda and Central India (including Patri State Branch)	15	28	741	784	14	26	2,486	2,526	16	4	2,540	2,560	65	163	1,723	1,951	110	221	7,490	7,821	444	77
Rajputana	29	(d) 28	721	778	35	58	1,442	1,535	40	9	7,589	7,638	(e) 133	(f) 159	3,359	3,651	237	254	13,111	13,602	726⅔	92
Western Rajputana																						
Holkar and Sindhia-Nimach	10	7	297	314	24	48	551	623	9	4	1,231	1,244	40	13	284	337	83	72	2,363	2,518	289	(g) 36
Bhaunagar-Gondal	5	3	92	100	4	9	176	189	10	2	35	47	18	—	120	138	37	14	423	474	119⅓	14
Gaekwar's	—	—	14	14	—	—	38	38	1	1	80	82	—	—	12	12	1	1	144	146	59½	9
Government of Bengal:																						
Calcutta and South-Eastern	—	—	21	21	—	—	66	66	—	1	96	97	—	2	49	51	—	3	232	235	28	8
Nalhati	—	—	17	17	—	1	24	25	(h) 1	—	69	70	2	—	41	43	3	1	151	155	27½	7
Northern Bengal (including Steam Ferry)	6	2	172	180	6	15	627	648	7	2	1,434	1,443	21	18	595	634	40	37	2,828	2,905	233	28
Tirhut (including Steam Ferry)	(i) 4	—	75	79	(k) 7	6	173	186	2	—	277	279	(l) 7	12	325	344	20	18	850	888	82	12
Patna-Gaya	—	—	60	60	4	5	82	91	2	—	270	272	3	5	129	137	9	10	541	560	57	8
Government of North-Western Provinces and Oudh:																						
Muttra-Hathras	—	—	3	3	1	—	36	37	—	1	59	60	1	—	64	65	2	1	162	165	29	6
Cawnpore-Farrukhabad	5	5	54	64	2	3	134	139	4	—	234	238	4	5	115	124	15	13	537	565	86	22
Central Provinces:																						
Wardha Coal	6	5	46	57	—	3	78	81	—	—	200	200	2	4	48	54	8	12	372	392	45	4
Nagpur and Chhatisgarh	2	3	31	35	3	13	92	108	2	4	343	349	22	19	479	520	28	39	945	1,012	564	9
British Burma:																						
Rangoon and Irawadi Valley	8	14	56	(m) 78	13	86	234	333	4	13	864	881	22	33	326	381	47	146	1,480	1,673	161	25
Hyderabad:																						
Nizam's	4	10	140	154	4	22	195	221	3	1	517	521	8	21	229	258	19	54	1,081	1,154	121	13
Mysore:—																						
Mysore (n)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	373	320	10,772	11,465	1,135	1,389	34,317	36,891	427	259	69,741	70,417	1,838	1,753	47,213	50,804	3,763	3,771	162,043	169,577	9,518⅔	1,252

(a) Including 1 European, 3 East Indians and 179 Natives of the Landing and Shipping Establishment. (b) Two men are contractors. (c) 163 men are extra. (d) Includes 1 Jew. (e) Includes 5 West Indians and Africans.
(f) Includes 3 Parsees. (g) Includes Mortakka and Patalpani Stations. (h) This is the Locomotive Foreman, who is also in charge of the Engineering Department. (i) This is on both the Tirhut and Patna-Gaya State Railways.
(k) and (l) One out of each is employed on both the Tirhut and Patna-Gaya State Railways. (m) Not including Police, which is under the control of the Inspector-General of Police, British Burma. (n) Return not received.

29. I regret that I am not able to report much progress with respect to the measures which were to have been taken for providing schools on the Hills for the children of the mechanical class of Europeans employed on the railways. The subject is still receiving consideration, but differences of opinion as to the best practical means of carrying out the intentions of the Government and the Companies seem to impede action in the matter. Both the East Indian and the Great Indian Peninsula Railway Companies have authorized the adoption of measures for the purpose, but no steps beyond submitting their plans to the Government appear to have been taken. In the case of the latter, the Chief Commissioner of the Central Provinces has objected to the proposal to build a school at Pachmarhi, a hill station near the railway, at the joint expense of Government and the Railway Company, on the ground that it is not required for other than railway children, and that they could be equally well provided for by increasing the accommodation of existing schools at Jabalpur. Hill Schools.

ACCIDENTS.

30. The following tables shew the number of accidents of various kinds which have occurred during the year 1881 on railways in India. It will be found that 7 passengers lost their lives, and that 67 were injured, from causes beyond their control. The number thus killed and injured were ·134 and 1·26 per million of those who travelled. This is in excess of the previous year, when the numbers were only 2 and 18, but less than the year 1879, when they were 30 and 69 respectively.

31. The railway servants killed and injured were 171 and 429 respectively, of whom 26 died and 115 received injuries from causes which were not due to their own fault or incaution.

32. The most serious accident in its results occurred on the Punjab and Delhi line in May. It was due to the breakage of an axle of a covered goods waggon attached to a mixed train. Four persons were killed and 10 were seriously injured. One accident was caused by a severe gale. It occurred on the Northern Bengal Railway on the 4th March, when seven carriages of a mixed train were overturned by the force of the wind. The train was proceeding at ordinary speed. The wind from the north-west acted perpendicularly to the left face of the train, which was running in a north-easterly direction. The driver asserted that the engine was up to his knees in hail stones. No lives were lost, and little damage was done.

33. As an example of the risks peculiar to Indian railways, it may be mentioned that on the Bombay and Baroda Railway an accident was very nearly caused by an elephant forcing the iron gate of a level crossing and running along the line. The animal fortunately took a direction opposite to that in which a train was coming.

Accidents to Persons during the Year 1881 (Companies' Classification).

Railway.	Passengers Killed or Injured from Causes beyond their control.		Passengers Killed or Injured from their own Misconduct or Incaution.		Railway Servants Killed or Injured from Causes beyond their control.		Railway Servants Killed or Injured from their own Misconduct or Incaution.		Persons Killed or Injured at Level Crossings.		Trespassers.		Miscellaneous.		Total Persons of all Classes.		Total Killed and Injured.
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	
East Indian*	—	9	14	37	6	20	20	67	2	—	36	7	4	5	82	145	227
Guaranteed.																	
Bombay, Baroda and Central India.	—	14	5	1	—	—	21	27	1	—	3	2	—	—	30	44	74
Eastern Bengal	—	—	—	2	—	—	5	15	—	—	6	1	—	—	11	18	29
Great Indian Peninsula†	—	18	—	4	—	10	36	78	3	2	14	5	1	—	54	117	171
Madras	—	—	1	1	2	24	1	3	1	—	5	1	4	—	14	29	43
Oudh and Rohilkund	—	—	—	6	—	—	5	23	—	—	13	3	2	1	20	33	53
Sind, Punjab and Delhi	4	20	1	10	—	6	17	32	—	—	6	2	—	—	28	70	98
South Indian	—	—	—	—	4	24	—	7	1	1	6	3	—	—	11	35	46
State.																	
Calcutta and South-Eastern	—	—	—	—	—	—	—	—	—	—	2	—	—	—	2	—	2
Cawnpore and Farrukhabad	—	—	—	—	—	—	—	3	—	—	1	—	1	—	2	3	5
Holkar and Sindhia-Nimach	—	—	—	2	2	—	6	4	—	—	2	1	—	—	10	7	17
Indus Valley and Kandahar	—	1	6	4	2	1	4	15	—	—	3	2	4	2	19	25	44
Muttra-Hathras	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	1
Nagpur and Chhatisgarh	—	—	—	—	—	1	—	1	—	—	—	1	1	—	1	3	4
Nalhati	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Nil
Northern Bengal	—	—	—	—	—	—	2	7	—	—	5	—	—	—	7	7	14
Patna-Gaya	—	—	—	—	—	—	—	2	—	—	4	3	1	—	5	5	10
Punjab Northern	3	4	2	8	4	10	7	4	—	2	4	2	—	—	20	30	50
Rajputana	—	1	3	8	4	13	20	16	2	2	10	1	1	4	40	45	85
Rangoon and Irawadi Valley.	—	—	1	—	1	6	—	6	—	2	1	1	1	2	4	17	21
Sindhia	—	—	—	—	—	—	1	2	—	—	—	—	—	—	1	2	3
Tirhut	—	—	—	—	—	—	—	—	—	—	1	1	1	—	2	1	3
Wardha Coal	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	1
Native States { Mysore	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Nil
Native States { Nizam's	—	—	—	—	1	—	—	1	—	—	1	—	—	—	2	1	3
Totals	7	67	33	83	26	115	145	314	10	9	123	37	21	14	365	639	1,004

* Includes Dildarnagar-Ghazipur State Line.

† Includes Dhond and Manmad and Berar Railways.

The following TABLES show (1) the NUMBER of ACCIDENTS to TRAINS, ROLLING STOCK, PERMANENT WAY, &c., distinguishing the different Classes of Accidents; and (2) the NUMBER of PASSENGERS, RAILWAY SERVANTS, and OTHER PERSONS reported as KILLED or INJURED, classifying (as far as practicable) the Nature and Causes of the Accidents occasioning the Death or Injury, during the Years 1880 and 1881 respectively, on Indian Railways (Government Classification).

TABLE I.

Year.	1881	1880
1. Collisions between Passenger Trains, or parts of Passenger Trains.	5	3
2. Collisions between Passenger Trains and Goods, or Mineral Trains, Engines, and Vehicles standing foul of the Line.	63	64
3. Collisions between Goods Trains, or parts of Goods Trains.	111	80
4. Collisions between Light Engines.	12	27
5. Passenger Trains, or parts of Passenger Trains, leaving the rails.	56	46
6. Goods Trains, or parts of Goods Trains, Engines, &c., leaving the rails.	332	324
7. Trains or Engines travelling in the wrong direction through Points.	57	60
8. Trains running into Stations or Sidings at too high a Speed.	8	8
9. Trains running over Cattle on the Line.	1,030	994
10. Trains running over obstructions on the Line.	114	111
11. Trains running through Gates at Level Crossings.	60	63
12. The bursting of Boilers or Tubes, &c., of Engines.	132	95
13. The failure of Machinery, Springs, &c., of Engines.	246	315
14. The failure of Tyres.	13	11
15. The failure of Wheels.	12	12
16. The failure of Axles.	45	30
17. The failure of Brake Apparatus.	1	1
18. The failure of Couplings.	77	69
19. The failure of Tunnels, Bridges, Viaducts, or Culverts.	1	—
20. Broken Rails.	33	77
21. The Flooding of Portions of Permanent Way.	37	33
22. Slips in Cuttings or Embankments.	20	22
23. Fire in Trains.	170	167
24. Fire at Stations, or involving Injury to Bridges or Viaducts.	30	30
25. Other Accidents.	159	167
Total all Classes.	2,814	2,913

TABLE II.

Passengers.		1881	1880
From Accidents to Trains.	Killed.	4	1
	Injured.	71	11
1. From falling between Carriages and Platforms.	Killed.	7	4
	Injured.	6	4
2. Falling on to the Platform, Ballast, &c., when getting into or out of the Trains.	Killed.	5	4
	Injured.	9	10
3. Whilst crossing the Line at Stations.	Killed.	2	3
	Injured.	—	—
4. By closing of Carriage Doors.	Killed.	—	—
	Injured.	4	6
5. Falling out of Carriages during the travelling of Trains.	Killed.	16	7
	Injured.	67	59
6. Other Accidents.	Killed.	6	3
	Injured.	8	6

TABLE II.—*continued.*

Servants.		1881	1880
From Accidents to Trains, &c.	Killed.	19	14
	Injured.	68	34
1. During Shunting Operations.	Killed.	15	18
	Injured.	89	37
2. Falling off Engines, Vans, Wagons, &c.	Killed.	13	16
	Injured.	43	27
3. Coming in contact with Overbridges, &c., during travelling of Trains.	Killed.	2	3
	Injured.	9	6
4. Coming in contact, while shunting, with Vehicles, &c., standing in adjoining Lines.	Killed.	2	2
	Injured.	3	1
5. Getting on or off Trains, Engines, &c.	Killed.	17	14
	Injured.	32	38
6. Whilst Loading, Unloading, or Shunting.	Killed.	13	5
	Injured.	50	42
7. Whilst Breaking, Spragging, or Chocking Wheels.	Killed.	—	—
	Injured.	4	4
8. Whilst working at Cranes or Capstans.	Killed.	—	—
	Injured.	5	4
9. Whilst working on the Permanent Way or in Sidings.	Killed.	9	7
	Injured.	8	13
10. Whilst walking along the Line, on the way home, or to work.	Killed.	13	4
	Injured.	5	—
11. Whilst walking, crossing, or standing on the Line.	Killed.	39	35
	Injured.	33	30
12. Whilst passing between Vehicles.	Killed.	3	3
	Injured.	4	4
13. Whilst attending to the machinery of Engines, cleaning them, &c.	Killed.	4	2
	Injured.	22	40
14. Whilst attending to Gates at Level Crossings.	Killed.	6	6
	Injured.	4	1
15. Falling, or being caught between Vehicles and Platforms.	Killed.	1	1
	Injured.	5	6
16. Falling off Ladders, Scaffolds, Platforms, &c.	Killed.	1	3
	Injured.	13	9
17. By falling of Lamps, Wagon-doors, Timber, Weights, &c.	Killed.	3	1
	Injured.	8	5
18. Whilst Coupling or Uncoupling Wagons.	Killed.	13	8
	Injured.	40	35
19. Miscellaneous.	Killed.	9	12
	Injured.	70	27
Others.			
Whilst passing over the Line at Level Crossings.	Killed.	10	5
	Injured.	5	8
Trespassers.	Killed.	104	98
	Injured.	31	24
Suicides.	Killed.	24	24
	Injured.	5	1
Miscellaneous.	Killed.	16	6
	Injured.	11	8

CAPITAL.

34. The total capital expenditure on railways in India up to the latest dates to which the accounts have been made up, namely, to the 31st December 1881 as regards State railways, and (approximately) to the 31st March 1882 as regards the East Indian and the Guaranteed railways, amounted to 134,200,581*l.*; which may be thus appropriated:—

	£
To Guaranteed lines	67,329,179
„ East Indian Railway	31,987,379
„ State lines	32,293,415
„ Lines in Native States	2,590,608
	£134,200,581

35. The Indian expenditure on the Guaranteed lines is converted into sterling at the contract rates of exchange, that on the East Indian Railway, subsequent to 1st January 1880, and on the State lines, at 2*s.* the rupee.

East Indian Railway.

36. The old capital of the East Indian Railway was cancelled at the time of its purchase by the State, and the portion (26,200,000*l.*), which was represented by stock was, with the purchase premium of 25 per cent. thereon, making a sum of 32,750,000*l.*, converted into annuities, aggregating 1,473,750*l.*, terminable in the year 1953.

37. Under the new contract with the East Indian Railway Company for working the line, the payment of annuities amounting to 294,750*l.* has been deferred for the term of the contract, and, in lieu, interest at 4 per cent. per annum is guaranteed by the State on 6,550,000*l.*, as representing these annuities and the nominal capital of the Company. On the termination of the contract the guarantee of interest will cease, and the annuities thus deferred will also become payable till 1953. In the meantime, there is, between annuities and interest, a yearly saving to the State of 32,750*l.*, which may be regarded as consideration given by the Company for the concession of working the line.

Redemption of East Indian Railway Annuities.

38. By the East Indian Railway Company's Purchase Act of 1879 it was provided that the Secretary of State might purchase any portion of the annuity then created by paying the proprietors, if in London, India 4 per cent. stock at the rate of 125*l.*, and, if in India, 4 per cent. rupee debt at the rate of 1,250 rupees, for every 5*l.* 12*s.* 6*d.* of annuity, one ninth part of the amount retained being invested by the Secretary of State to provide, by the investment of the dividends accruing thereon, a sinking fund to be applied to the reduction of the debt of India to an amount equivalent to the debt attributable to the purchase of the portion of the annuity registered in the name of the Secretary of State. By another Act passed in the same session the Secretary of State was empowered to create stock for this purpose. The principle of this arrangement has been extended by an Act of last Session (1881), which empowers the Secretary of State to purchase any portions of the annuity from the holders, paying for them India stock "at such a rate of exchange that the annual "interest on the stock given in exchange for any annuity shall not exceed eight "ninths of the annuity," and for this purpose the Secretary of State was authorized to create and issue stock, bearing interest varying from 3½ to 4 per cent. per annum, it being provided that any present gain in the shape of a reduced charge for interest shall be invested as a sinking fund until the debt representing the annuity is liquidated.

39. A considerable portion of these annuities has consequently been redeemed, the total amount of stock and rupee debt created for the purpose having been 5,712,913*l.*,

a portion of which has already been cancelled under the action of the sinking fund. On the 31st March 1882, the annuities still amounted to 924,850*l.* 7*s.* 7*d.*, and those redeemed were represented by 4 per cent. India stock and rupee debt for 5,082,353*l.* 1*s.* 9*d.* and 3½ per cent. India stock for 586,300*l.*, together involving an annual interest charge under debt of 223,814*l.* 12*s.* 5*d.* As the annuities redeemed amount to 254,149*l.* 12*s.* 5*d.*, there is a reduction of yearly payment arising from these transactions of 30,335*l.* This redemption of annuities is a transaction connected with the public debt, with which neither the working Company nor the railway revenue has any direct concern. Position of the Capital Account of the East Indian Railway.

40. The yearly charges on the revenue of the East Indian Railway under the terms of the contract, and which arise out of the purchase of the line, are now as follows:—

	£
1. Interest on 4,450,000*l.* debenture stock and debentures, some of which latter have been paid off - -	190,500
2. Annuities, of which 254,149*l.* 12*s.* 5*d.* have been redeemed - - - - - -	1,179,000
3. Interest at 4 per cent. on capital sum of 6,550,000*l.*, representing annuities of 294,750*l.* deferred - -	262,000
Total - -	£1,631,500

41. Under items 2 and 3 of the foregoing statement, there is a process of extinction of capital debt going on, with which the revenue of this railway is now burdened, so that, in 1953 the only debt in the books of the Empire on account of the purchase need be that which represents the debentures and debenture stock taken over with the line, the interest of which during the term of the present contract will, moreover, have been a charge on the revenue of the railway. For, the action of the sinking fund which has been started will extinguish the stock created for the redemption of annuities. Consequently, the total sum of 32,750,000*l.* will have been discharged by contributions from the revenue of the line, or the equivalent of nearly 450,000*l.* yearly, between 1880 and 1953. (*Vide* "Indian Finance and Public Works," by Sir John and General Strachey.)

42. The next charge on the revenue of this railway is that for interest at 4½ per cent. per annum on the capital advanced by the State for expenditure since the purchase, viz., 1,107,683*l.*, of which 154,248*l.* was advanced in 1879–80, 418,435*l.* in 1880–81, and 535,000*l.* (partly estimated) in 1881–82.

43. It will be understood, after this explanation, that there is now no capital account which can be quoted with strict financial accuracy as representing the outlay on this railway, and none such will be found in the subjoined tabular statements, prepared in the Offices of Account. The capital account which exists under the new contract deals only with outlay subsequent to the purchase of the line by the State.

44. For railway administrative purposes, however, it will be convenient to start from the 1st January 1880 with the capital (including that not bearing interest) as it stood on the previous day (the date of purchase), viz., 30,879,696*l.*, but now involving a yearly charge (para. 40) on the revenue of the railway of 1,631,500*l.*, of which 65,500*l.* may be said to be in part payment of the purchase money of the railway.

45. If to the sum of 30,879,696*l.* be added the amounts since advanced to the Company by the State, the capital account on 31st March 1882 may be said to stand at 31,987,379*l.*

Note.—In all transactions between England and India under the new contract with the East Indian Railway Company, the rate of exchange is that which for the time governs adjustments between the British and Indian Governments.

Capital Expenditure on State Lines during 1882–83.

46. During the current year 1882–83, the budget estimate contains the following allotment of Rs. 1,80,00,000 for State railways, excluding the East Indian Railway, for which Rs. 48,50,000 is allotted, viz. :—

		Rs.
Bengal,—		
Calcutta and South-Eastern		16,00,000
Nalhati		
Northern Bengal		
Patna and Gaya		
Tirhut		
North-West Provinces and Oudh,—		
Bareilly-Pilibhit (Provisional)		2,50,000
Muttra-Hathras		1,50,000
Muttra-Achnera		
Cawnpore-Farrukhabad		
Ghazipur-Dildarnagar		
Punjab,—		
Amritsar-Pathankot		20,00,000
Punjab Northern (Lahore-Jhelum Section)		75,000
British Burma,—		
Rangoon and Tsit-toung		30,00,000
Rangoon and Irawadi		
Central Provinces,—		
Nagpur-Chhatisgarh (Nandgaon Extension)		10,00,000
Sind,—		
Indus Valley		24,00,000
Rajputana		50,00,000
Sindhia		2,00,000
Bombay,—		
Dhond-Manmad		75,000
Total		1,57,50,000
Reserve		22,50,000
Total		Rs. 1,80,00,000

47. The total amount of capital raised by the various Guaranteed and Assisted Railway Companies amounted on the 31st March 1882 to 67,715,609*l.*, of which—

£					
56,649,417	consists of	share capital	raised	at	5 per cent.
1,203,218	,,	,,	,,	,,	4¾ ,,
500,000	,,	,,	,,	,,	4½ ,,
250,000	,,	,,	,,	,,	4 ,,
4,251,450	,,	debentures		,,	4 ,,
800,000	,,	,,		,,	3½ ,,
425,000	,,	debenture stock		,,	4½ ,,
3,497,458	,,	,,	,,	,,	4 ,,
*139,066	capital not bearing interest.				

---

* Made up thus :—

	£	£	£
Premium on share capital and debentures, &c.			441,523
Discount on debenture stock,—			
Stock represented as shown above		3,922,458	
Cash received		3,629,878	
		292,580	
Discount on debentures,—			
Amount of debt shown above	5,051,450		
Cash received	5,041,573		
		9,877	
			302,457
			£139,066

48. The following statement contrasts the financial results of the working of the East Indian Railway under the terms of the old and new contracts, for the years 1880 and 1881 :—

	1880.		1881.
	Rs.		Rs.
Net traffic receipts, less contribution to Provident Fund -	2,84,66,849		3,06,38,827
Under Old Contract.			
Guaranteed interest 1,498,000*l.* at 1*s.* 10*d.* - - -	1,63,41,818		1,63,41,818
Interest at 5 per cent. on additional capital supplied by Government - - -	1,52,017		2,36,667
Company's share of surplus -	59,86,507		70,30,171
Loss by exchange (1*s.* 8½*d.*) on Guaranteed interest - -	11,95,743	(at 1*s.* 8*d*)	16,34,182
Government residue - -	47,90,764		53,95,989
Under New Contract.			
Annuity and interest (1*s.* 8½*d.*), including additional capital -	1,92,08,036	(at 1*s.* 8*d.*)	1,97,91,000
Surplus to Company - -	17,72,690		20,63,867
Residue to Government -	74,86,123		87,83,960
Excess share of Government under *new* contract - -	26,95,359		33,87,971

STATEMENT showing the AMOUNT received from and withdrawn by each Company during the Year ended 31st March 1882.

Railway.	Sums standing to the Credit of the Companies on the 31st March 1881.	Sums advanced to the Companies on the 31st March 1881.	Amount received: In England, between 1st April 1881 and 31st March 1882. — Share Capital.	Debentures.	Debenture Stock.	Capital not bearing Interest.	Amount received: In India, between 1st April 1881 and the Date to which Accounts have been received. — Share Capital.	Capital not bearing Interest.	Amount withdrawn: In England, between 1st April 1881 and 31st March 1882. — On account of Stores, Establishment Charges, &c.	For Discharge of Debentures.	Amount withdrawn: In India. — Date to which Accounts have been received.	Amount.	Estimated Withdrawals between Dates specified and 31st March 1882.	Total received during the Year ended 31st March 1882.	Total withdrawn during the Year ended 31st March 1882.
GUARANTEED.	£	£	£	£	£	£	£	£	£	£		£	£	£	£
Bombay, Baroda and Central India.	334,122	—	—	—	—	—	—	—	172,960	200,000	31st January 1882	51,551	*10,000*†	—	414,511
Eastern Bengal	—	22,869	—	—	—	—	—	—	20,643	—	,,	*4,237**	*20,000*†	—	*3,594*
Great Indian Peninsula.	226,100	—	—	—	—	—	—	—	377,824	—	,,	*69,842**	*150,000*†	—	157,982
Madras	230,151	—	—	—	—	426	—	—	106,465	—	,,	*29,543**	*40,000*†	426	36,922
Oudh and Rohilkund	132,848	—	—	300,000	—	8,067	—	—	183,302	—	,,	87,197	15,000	308,067	285,499
Sind, Punjaub and Delhi.	79,713	—	—	—	—	—	—	—	111,243	—	,,	*29,255**	*20,000*†	—	61,988
South Indian	27,731	—	—	—	—	—	—	—	68,585	—	,,	7,966	*20,000*†	—	56,551
Total Guaranteed	1,030,665	22,869	—	300,000	—	8,493	—	—	1,041,022	200,000	—	13,837	*245,000*†	308,493	1,009,859
ASSISTED.															
Bengal Central	—	—	250,000	—	—	—	—	—	170,000	—	—	—	—	250,000	170,000
Total	1,030,665	22,869	250,000	300,000	—	8,493	—	—	1,211,022	200,000	—	13,837	*245,000*†	558,493	1,179,859

* Transfers of expenditure to Revenue Account, Sale proceeds of Stores, Refunds, &c., exceed by these sums the amounts withdrawn in India on Capital Account during the year.

† It is estimated that, on receipt of advices from India regarding transfers, which are several months in arrear of cash transactions, transfers of expenditure to Revenue Account, &c., will have exceeded the withdrawals to this extent.

India Office, 4th April 1882.

THOS. W. KEITH,
Accountant General.

49. The amount of railway capital held by Native investors is small. Nearly 99 per cent. of that raised by the Guaranteed Companies continues to be registered in England, and probably most of the remainder is in the hands of Europeans in India. An example has lately been shown as to the indifference of the Indian community in regard to railway investments. When the Southern Mahratta Railway prospectus was issued, 500,000*l.* out of the 3,000,000*l.* capital was reserved for distribution in India; only 395 shares, however, representing 7,900*l.*, were applied for. But in some recent instances an interest has been shown by local proprietors and traders in provincial lines, and they have advanced money for the purpose. Several Native Chiefs have undertaken railways, and there is a growing desire among them to secure the advantages of railway communication, and to bring their States within a general system, which will connect them with any part of India. The names of the Nizam, Holkar, Sindhia, the Gaekwar of Baroda, the Begum of Bhopal, and of certain Chiefs in Kathiawar, have been mentioned on previous occasions. Some of these Chiefs are already deriving benefit from their enterprise, and are anxious to extend their operations. The Maharajah of Mysore has this year completed the first line in his territory, and the Maharajah of Travancore and Rajah of Cochin have offered assistance to a Company in their provinces. Capital held in India.

50. The following statement gives the actual cost of each railway and the average cost per mile.

Railway.	Length of Line open on 31st December 1881.	Total Capital Outlay.	Average Cost per Mile.
	Miles.	(To 31st March 1882, (partly estimated).) £	£
East Indian	1,504½	31,987,379	21,321
GUARANTEED.			
Bombay, Baroda and Central India	421½	8,037,326	19,091
Eastern Bengal	158¾	3,264,125	20,529
Great Indian Peninsula	1,288	23,638,904	18,353
Madras	858	10,476,894	12,210
Oudh and Rohilkund	546¾	6,334,027	11,579
Sind, Punjab and Delhi	663½	11,061,928	16,659
South Indian (metre gauge)	653¼	4,345,975	6,655
STATE.		(To 31st December 1881.)	
Calcutta and South-Eastern	28	679,633	24,272
Cawnpore and Farrukhabad (metre)	86	320,167	3,722
Dhond and Manmad	145¾	994,934	6,814
Holkar and Sindhia-Nimach (metre)		See "Rajputana-Malwa."	
Indus Valley and Kandahar	653	7,812,924	11,964
Muttra-Hathras (metre)	29	108,576	3,744
Muttra and Achnera (metre)	24	61,192	2,549
Nagpur and Chhatisgarh (metre)*	98	732,688	7,476
Nalhati (4-ft. gauge)	27¼	33,067	1,224
Northern Bengal (metre)	266½	2,095,675	7,848
Patna-Gaya	57	367,831	6,453
Punjab Northern*	354¾	4,252,644	11,979
Rajputana-Malwa (metre)	1,115¾	8,794,135	7,880
Rangoon and Irawadi Valley (metre)	161	1,279,373	7,946
Sindhia	74¾	861,666	11,488
Tirhut (metre)*	85	604,857	7,116
Wardha Coal	46½	588,099	12,647
NATIVE STATES.			
Amraoti	6	44,566	7,427
Bhaunagar-Gondal (metre)	192½	744,635	3,878
Khamgaon	8	49,427	6,178
Mysore (metre)*	58	365,634	6,304
Nizam's	121	1,228,529	10,153

* Only partly opened for traffic.

Excluding the Calcutta and South-Eastern line, which was constructed by a Company, the most expensive of the larger State lines, viz., the Indus Valley and the Punjab Northern, have been made primarily for defensive purposes; but they will also be important as commercial communications.

Guaranteed and Assisted Railways.

Statement shewing the Amount of Capital authorized to be raised for each Undertaking as now sanctioned, the Amount raised, and the Amount withdrawn, to 31st March 1882.

Railway.	Amount authorized to be raised on 31st March 1882.					Amount raised in England to 31st March 1882.						Amount raised in India to Date of last Advices.		Total Amount raised to 31st March 1882.	Total Amount withdrawn to 31st March 1882 (partly estimated).
	Share Capital.	Debentures.	Debenture Stock.	Capital not bearing Interest.	Total.	Share Capital.	Debentures.		Debenture Stock.		Capital not bearing Interest.	Share Capital.	Capital not bearing Interest.		
							Amount of Debentures.	Cash received.	Stock represented.	Cash received.					
Guaranteed.	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Bombay, Baroda and Central India	7,550,300	575,000	—	35,387	8,160,687	7,528,628	*375,000*	371,250	—	—	35,387	21,672	—	7,956,937	8,037,326
Eastern Bengal	2,255,520	612,350	411,308	2,288	3,281,466	2,238,996	*612,350*	612,350	*411,308*	374,730	2,288	16,486	—	3,244,850	3,264,125
Great Indian Peninsula	20,000,000	928,800	3,065,300	303,789	24,297,889	19,503,103	*928,800*	927,673	*2,701,450*	2,475,559	228,860	496,897	74,929	23,707,021	23,638,904
Madras	10,267,850	400,000	—	10,548	10,678,398	10,260,001	*400,000*	400,000	—	—	10,548	—	—	10,670,549	10,476,894
Oudh and Rohilkund	4,000,000	2,615,300	384,700	19,555	7,019,555	3,575,581	*2,115,300*	2,115,300	*384,700*	354,589	19,555	424,419	—	6,489,444	6,334,027
Sind, Punjaub and Delhi	11,418,900	—	—	4,363	11,423,263	10,988,984	—	—	—	—	4,336	86,306	27	11,079,653	11,061,928
South Indian	3,211,562	620,000	425,000	65,593	4,322,155	3,210,341	*620,000*	615,000	*425,000*	425,000	65,538	1,221	55	4,317,155	4,345,975
Total Guaranteed	58,704,132	5,751,450	4,286,308	441,523	69,183,413	57,305,634	*5,051,450*	5,041,573	*3,922,458*	3,629,878	366,512	1,047,001	75,011	67,465,609	67,159,179
Assisted.															
Bengal Central	1,000,000	—	—	—	1,000,000	250,000	—	—	—	—	—	—	—	250,000	170,000
Total £	59,704,132	5,751,450	4,286,308	441,523	70,183,413	57,555,634	*5,051,450*	5,041,573	*3,922,458*	3,629,878	366,512	1,047,001	75,011	67,715,609	67,329,179

India Office, 4th April 1882.

Thos. W. Keith,
Accountant General.

STATEMENT of WITHDRAWALS out of CAPITAL for EXPENDITURE; shewing the Amount withdrawn in England and in India by all the Guaranteed and Assisted Indian Railway Companies during each Financial Year from the commencement to 31st March 1882.

Year.	England.	India.	Total.
	£	£	£
1849–50	69,211	6,682	75,893
1850–51	61,164	38,099	99,263
1851–52	154,212	197,111	351,323
1852–53	174,920	252,640	427,560
1853–54	252,484	418,165	670,649
1854–55	960,878	769,278	1,730,156
1855–56	1,935,074	1,431,337	3,366,411
1856–57	1,752,813	1,762,287	3,515,100
1857–58	1,328,243	2,094,825	3,423,068
1858–59	1,941,033	3,551,075	5,492,108
1859–60	2,508,668	4,662,796	7,171,464
1860–61	2,388,315	5,190,400	7,578,715
1861–62	1,597,430	5,004,782	6,602,212
1862–63	1,852,393	4,010,951	5,863,344
1863–64	1,415,146	3,340,507	4,755,653
1864–65	1,396,821	2,725,419	4,122,240
1865–66	2,222,679	3,414,187	5,636,866
1866–67	3,958,357	3,339,346	7,297,703
1867–68	3,924,490	3,195,591	7,120,081
1868–69	1,702,452	2,165,475	3,867,927
1869–70	2,298,680	2,444,171	4,742,851
1870–71	1,899,054	1,877,216	3,776,270
1871–72	886,996	1,609,732	2,496,728
1872–73	822,995	*345,750**	477,245
1873–74	1,028,032	*334,979**	693,053
1874–75	1,174,893	*86,982**	1,087,911
1875–76	1,151,585	*200,779**	950,806
1876–77	1,222,846	*507,387**	715,459
1877–78	1,793,662	*469,678**	1,323,984
1878–79	1,786,234	*773,611**	1,012,623
1879–80	1,256,417	*906,857**	349,560
1880–81	941,782	*506,992**	434,790
Total expenditure to end of 1880–81	47,859,959	49,369,057	97,229,016
Deduct: Withdrawals by East Indian Railway Company to 31st December 1879	12,276,504†	18,603,192	30,879,696
Total expenditure to end of 1880–81, as shewn in the Indian Finance and Revenue Accounts	35,583,455	30,765,865	66,349,320
1881–82 (partly estimated)	1,211,022	*231,163**	979,859
Total £	36,794,477	30,534,702	67,329,179

* Transfers of expenditure to Revenue Account, Sale proceeds of Stores, Refunds, &c., exceed by these sums the amount withdrawn in India on Capital Account.

† This amount is less than that shewn in last year's Statement owing to an adjustment in respect of payments in England, in January and February 1880, amounting to 7,242*l*.

India Office, 4th April 1882. THOS. W. KEITH, Accountant General.

STATE of DEBENTURE LOANS on the 31st March 1882.

Railway.	Amount.		Rate of Interest.	Date at which Loan expires.
	£	£		
Bombay, Baroda and Central India	375,000	375,000	4	1st August 1884.
Eastern Bengal	150,000		4	19th May 1884.
,,	52,650		4	1st November 1884.
,,	409,700	612,350	4	12th July 1886.
Great Indian Peninsula	320,500		4	1st January 1884.
,, ,, ,,	568,800		4	1st July 1885.
,, ,, ,,	39,500	928,800	4	1st January 1886.
Madras	200,000		4	30th June 1882.
,,	200,000	400,000	4	31st December 1883.
Oudh and Rohilkund	60,000		3½	1st August 1884.
,, ,,	200,000		4	16th August 1884.
,, ,,	300,000		4	1st May 1885.
,, ,,	615,300		4	4th June 1887.
,, ,,	200,000		4	1st October 1887.
,, ,,	740,000	2,115,300	3½	1st August 1888.
South Indian	620,000	620,000	4	1st July 1884.
		£5,051,450		

India Office, 4th April 1882. THOS. W. KEITH, Accountant General.

STATEMENT of EXPENDITURE in England and in India on Indian STATE

State Railways.	Expenditure appropriated.			Classification of Expenditure.				
	England.	India.	Total.	Preliminary Expenses.	Land.	Construction of Line.	Ballast and Permanent Way.	Stations and Buildings.
RAILWAYS CONSTRUCTED AND UNDER CONSTRUCTION.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Calcutta and South-Eastern	43,87,603	24,08,732	67,96,335	67,688	9,35,073	10,75,291	15,34,906	7,89,546
Nalhati	3,78,498	—47,822	3,30,676	—	—	21,690	1,90,420	25,600
Rajputana-Malwa	2,01,81,415	5,52,14,258	7,53,95,673	18,81,334	6,57,935	1,97,00,430	2,33,44,547	84,99,467
Rewari-Firozpur	—	2,04,141	2,04,141	51,102	—	1,894	—	—
Holkar	34,14,678	91,31,010	1,25,45,688	2,16,987	57,818	58,67,785	22,70,375	13,42,844
Wardha Coal	7,34,062	51,46,931	58,80,993	91,642	4,654	15,73,996	20,49,835	3,51,807
Punjab Northern — Lahore to Jhilam	66,05,716	1,94,55,437	2,60,61,153	4,89,450	2,47,066	1,16,19,912	52,61,659	12,99,374
Punjab Northern — Jhelum to Rawalpindi.	5,64,776	1,59,00,515	1,64,65,291	3,59,570	4,39,665	74,21,083	31,61,619	8,22,661
Lalla Musa Salt Branch	—	20,73,235	20,73,235	24,461	19,577	2,21,911	10,29,709	1,48,674
Indus Valley	1,44,30,856	5,02,38,023	6,46,68,879	10,79,361	2,82,146	2,19,94,993	1,82,19,368	46,62,343
Northern Bengal	53,39,117	1,56,17,636	2,09,56,753	1,26,480	8,31,339	57,86,414	55,31,619	24,46,111
Dinajpur Extension	—	8,876	8,876	7,038	—	459	—	61
Calcutta and South-Eastern Extension	—	6,51,211	6,51,211	9,632	41,774	1,06,542	3,36,406	26,935
Rangoon and Irawadi Valley	24,51,796	1,03,41,940	1,27,93,736	56,589	1,95,346	29,81,498	42,78,217	18,32,174
Sindhia	14,62,359	71,54,303	86,16,662	2,64,859	20,526	48,41,130	21,13,887	6,27,960
Tirhut	19,73,700	40,74,872	60,48,572	9,201	1,54,080	8,83,411	20,35,050	8,28,022
„ Extension	1,55,903	15,13,877	16,69,780	36,909	1,06,561	1,90,686	3,05,737	14,033
Nagpur and Chhatisgarh	16,69,778	56,57,109	73,26,887	2,15,958	13,405	26,61,855	17,80,508	7,12,848
Dhond and Manmad	42,11,222	57,38,124	99,49,346	1,28,698	39,113	30,33,793	50,71,424	6,89,218
Patna and Gaya	8,57,456	28,20,859	36,78,315	6,909	1,30,784	5,38,536	19,30,269	3,75,173
Cawnpore and Farrukhabad	7,90,316	24,11,362	32,01,678	29,894	61,467	4,42,081	14,09,796	3,17,681
Ghazipur and Dildarnagar	—	6,72,500	6,72,500	2,218	8,636	75,510	3,44,250	97,100
Muttra and Achnera	9,958	6,01,964	6,11,922	1,643	10,258	93,676	3,64,790	68,707
Muttra and Hathras	1,974	10,83,792	10,85,766	926	15,696	34,846	5,31,386	1,24,972
Frontier Railways — Punjab Northern (Northern Section).	48,12,905	1,58,92,284	2,07,05,189	2,15,237	1,69,460	66,64,373	61,02,586	18,93,066
Frontier Railways — Kandahar Railway	13,28,352	1,21,32,014	1,34,60,366	1,94,877	17,677	15,50,475	72,77,314	7,53,667
Rangoon and Tsit-toung Valley	41,484	8,16,772	8,58,256	2,33,796	42,259	1,85,390	56,392	73,981
Southern Mahratta	—	60,223	60,223	37,879	39	6,142	24	—
Bellary and Hubli	—	1,56,056	1,56,056	71,329	—	2,487	7,305	—
Total	3,58,03,924	24,71,30,234	32,29,34,158	59,11,667	43,02,354	9,95,78,289	9,65,39,398	2,88,24,025
SURVEYS AND RAILWAYS IN ABEYANCE.								
Sindia Extension—Gwalior-Jhansi Section.	—	22,330	22,330	22,330	—	—	—	—
Bhopal Railway Extension	—	17,921	17,921	17,921	—	—	—	—
Hazeepur Extension	—	14,034	14,034	14,034	—	—	—	—
Nagpur Railway Survey	—	30,362	30,362	24,176	—	—	—	—
Palamau	—	4,692	4,692	4,692	—	—	—	—
Amritsar-Pathankot	—	30,165	30,165	30,174	—	—	—	—
Umballa-Kalka	—	27,642	27,642	27,231	—	—	—	—
Dacca and Maimansinh	—	7,573	7,573	723	—	—	—	—
Railway Surveys in North-Western Provinces and Oudh.	—	4,87,718	4,87,718	4,82,700	—	—	—	—
Railway Surveys in Bombay	31,588	5,92,737	6,24,325	5,87,379	—	—	—	—
„ „ in Central Provinces	—	40,277	40,277	40,186	—	—	—	—
„ „ in Madras	—	6,436	6,436	5,516	—	—	—	—
Total	31,588	12,81,887	13,13,475	12,57,114	—	—	—	—
Grand total	7,58,35,512	24,84,12,121	32,42,47,633	71,68,781	43,02,354	9,95,78,289	9,65,39,398	2,88,24,025
NATIVE STATES.								
Nizam's	—	1,22,85,291	1,22,85,291	1,45,445	—	40,67,531	47,73,837	12,85,218
Khamgaon	—	4,94,271	4,94,271	869	1,116	1,10,457	2,78,600	46,380
Amraoti	—	4,45,663	4,45,663	11,799	2,450	95,282	2,41,243	43,298
Mysore	—	36,56,345	36,56,345	94,267	66,235	8,91,301	13,90,557	2,78,333
Bhaunagar-Gondal	—	74,46,353	74,46,353	51,988	—	18,20,277	26,43,508	4,29,480
Bhopal	—	15,78,157	15,78,157	—	888	8,72,712	11,380	32,941
Total	—	2,59,06,080	2,59,06,080	3,03,318	70,689	78,57,560	93,89,125	21,15,645

Railways appropriated to the various Undertakings to 31st December 1881.

Classification of Expenditure.								State Railways.
Steam Ferries.	Electric Telegraph.	Collieries.	Plant.	Rolling Stock.	Establishment.	Suspense Account.	Receipts on Capital Account deducted.	
								RAILWAYS CONSTRUCTED AND UNDER CONSTRUCTION.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
—	—	—	77,883	11,91,298	10,64,485	60,165	—	Calcutta and South-Eastern.
—	—	—	7,500	36,000	30,000	22,896	3,430	Nalhati.
—	—	—	15,59,359	1,03,02,758	52,91,064	42,15,711	56,932	Rajputana-Malwa.
—	—	—	11	—	11,960	1,39,195	21	Rewari-Firozpur.
—	—	—	3,29,422	11,47,145	13,43,124	11,138	40,950	Holkar.
—	—	3,40,31	3,62,327	3,32,921	6,08,388	1,74,260	8,868	Wardha Coal.
—	—	—	11,26,089	23,18,348	37,89,721	411	90,872	Punjab Northern — Lahore to Jhelum.
—	—	—	6,14,756	16,01,750	9,40,215	13,22,503	18,531	Punjab Northern — Jhelum to Rawalpindi.
—	—	—	17,749	5,21,102	89,065	1,742	746	Lalla Musa Salt Branch.
31,340	—	—	16,23,811	75,97,401	68,68,481	23,87,068	97,433	Indus Valley.
4,27,137	—	—	7,19,505	22,97,929	22,56,492	5,77,572	43,845	Northern Bengal.
—	—	—	—	—	1,318	—	—	Dinajpur Extension.
—	—	—	2,835	8,980	17,595	1,01,709	1,197	Calcutta and South-Eastern Extension.
—	—	—	3,96,188	16,88,990	10,63,078	3,97,896	6,240	Rangoon and Irawadi Valley.
—	—	—	35,692	1,33,864	5,74,203	30,085	25,544	Sindhia.
2,51,935	—	—	2,14,664	5,85,346	5,75,658	5,15,435	4,230	Tirhut.
—	—	—	10,406	1,19,289	65,770	8,20,479	90	,, Extension.
—	—	—	2,68,776	6,67,981	5,84,076	4,25,414	3,934	Nagpur and Chhatisgarh.
—	—	—	1,91,729	15,974	7,65,814	27,642	14,059	Dhond and Manmad.
—	—	—	52,809	2,30,763	2,49,529	1,73,914	1,371	Patna and Gaya.
—	—	—	44,152	6,17,194	2,04,014	75,658	259	Cawnpore and Farrukhabad.
—	—	—	6,618	—	58,353	80,067	252	Ghazipur and Dildarnagar.
—	—	—	3,917	—	48,625	20,474	168	Muttra and Achnera.
—	—	—	7,685	2,62,229	73,430	34,804	208	Muttra and Hathras.
—	—	—	9,75,194	18,47,034	7,97,681	20,45,586	5,028	Frontier Railways — Punjab Northern (Northern Section).
—	—	—	2,42,498	18,45,817	3,14,999	12,64,983	1,941	Frontier Railways — Kandahar Railway.
—	—	—	17,932	—	99,293	1,49,376	163	Rangoon and Tsit-toung Valley.
—	—	—	4,998	—	4,086	7,060	—	Southern Mahratta.
—	—	—	4,710	—	3,910	66,306	—	Bellary and Hubli.
7,30,412	—	3,40,031	89,19,210	3,53,70,108	2,77,85,427	1,50,59,549	4,26,312	Total.
								SURVEYS AND RAILWAYS IN ABEYANCE.
—	—	—	—	—	—	—	—	Sindia Extension—Gwalior-Jhansi Section.
—	—	—	—	—	—	—	52	Bhopal Railway Extension
—	—	—	—	—	—	—	—	Hazeepur Extension.
—	—	—	—	—	—	6,186	—	Nagpur Railway Extension.
—	—	—	—	—	—	—	—	Palamau.
—	—	—	—	—	—	—	9	Amritsar-Pathankot.
—	—	—	—	—	—	440	29	Umballa-Kalka.
—	—	—	—	—	—	6,850	—	Dacca and Maimansinh.
—	—	—	—	—	—	5,324	306	Railway Surveys in North-Western Provinces and Oudh.
—	—	—	—	—	—	36,946	—	Railway Surveys in Bombay.
—	—	—	—	—	—	98	7	,, ,, in Central Provinces.
—	—	—	—	—	—	920	—	,, ,, in Madras.
—	—	—	—	—	—	56,764	403	Total.
7,30,412	—	3,40,031	89,19,210	3,53,70,108	2,77,85,427	1,51,16,313	4,26,715	Grand Total.
								NATIVE STATES.
—	—	—	2,00,246	6,91,542	10,93,800	1,09,813	82,141	Nizam's.
—	—	—	3,503	11,669	30,720	11,701	244	Khamgaon.
—	—	—	3,015	8,640	28,609	11,325	—	Amraoti.
—	—	—	67,691	2,21,683	3,18,313	3,35,780	7,815	Mysore.
—	—	—	3,40,200	10,18,546	4,37,312	7,12,245	7,153	Bhaunagar-Gondal.
—	—	—	1,205	—	97,553	5,58,696	218	Bhopal.
—	—	—	6,18,860	19,, 2,082	20,06,807	17,39,565	97,571	Total.

A. J. FILGATE, Major, R.E.,
Deputy Accountant General, Calcutta.

REVENUE.

51. The net revenue derived from the railways during the year 1881 was 6,952,714*l.*, compared with 6,147,043*l.* of the previous year. The rates of exchange for conversion of rupees into sterling currency are shewn on page 30. If the rate for the East Indian Railway be taken at 1*s.* 10*d.* as under the old contract, the total net revenue would be 6,694,811*l.* in 1881, and 5,907,422*l.* in 1880.

52. The gross receipts in 1881 were 13,725,953*l.*, and the expenses 6,773,239*l.*

53. The net revenue of the Guaranteed lines and of the East Indian amounted to 6,205,655*l.*, the gross receipts being 11,259,639*l.*, and the expenses 5,053,984*l.* The guaranteed interest, omitting the East Indian, in respect of the year, amounted to 3,272,651*l.*, being 161,827*l.* in excess of the net revenue.

Percentage of receipts to capital.

54. The net revenue of the East Indian Railway, converted into sterling at 1*s.* 10*d.* the rupee, amounted to 2,836,928*l.*, being at the rate of 8*l.* 17*s.* per cent. per annum on a capital of 31,987,379*l.* If the exchange be taken at 2*s.* the rupee, as for the other State lines, the net revenue would be 3,094,831*l.* being at the rate of nearly 9*l.* 14*s.* per cent. on the same capital.

55. Taking all the lines together, the net receipts last year yielded a return of nearly 5*l.* 3*s.* per cent. on the capital expended. In the year 1880, they were at the rate of 4*l.* 15*s.* per cent. In 1879, 4*l.* 7*s.* per cent.

56. The East Indian and Guaranteed lines, together, earned 6*l.* 4*s.* per cent., and the State lines nearly 2*l.* 3*s.* per cent. With regard to the latter it should be observed that their construction is of comparatively recent date, and their traffic is consequently less developed than the older lines. Moreover, the former occupy the best fields.

57. It should be noted that, by including in the capital outlay of the Guaranteed lines and of the East Indian Railway the capital expended up to the 31st March of the current year (1882), the rate of return is made to appear less favourable than it really is, as the earnings taken are for the calendar year 1881.

58. The following table shews the net earnings and percentages on capital expenditure for the principal railways during the last five years :—

Railway.	1881.		1880.		1879.		1878.		1877.*	
	Net Earnings.	Percentage of Net Earnings per annum on Capital Expenditure.	Net Earnings.	Percentage of Net Earnings per annum on Capital Expenditure.	Net Earnings.	Percentage of Net Earnings per annum on Capital Expenditure.	Net Earnings.	Percentage of Net Earnings per annum on Capital Expenditure.	Net Earnings.	Percentage of Net Earnings per annum on Capital Expenditure.
East Indian	£ 3,094,831 or at 1s. 10d. the rupee 2,836,928	9·65 or at 1s. 10d. 8·85	£ 2,875,442 or at 1s. 10d. the rupee 2,635,821	9·10 or at 1s. 10d. 8·70	£ Main Line 2,456,501 Jabalpur Line 209,250	9·19 6·03	£ 2,150,764 194,178	8·14 5·69	£ 2,503,192 267,318	9·50 7·89
Bombay, Baroda and Central Indian.	526,689	6·55	434,010	5·72	347,682	4·61	337,986	4·52	414,845	5·55
Eastern Bengal	308,850	9·46	249,728	7·67	223,073	7·10	239,715	7·73	241,859	7·79
Great Indian Peninsula	1,486,786	6·28	1,018,009	4·44	935,356	4·10	1,328,364	5·88	1,527,632	6·89
Madras	190,286	1·81	179,404	1·77	190,224	1·88	145,565	1·44	374,723	3·76
Oudh and Rohilkund	197,570	3·12	190,441	3·30	181,993	3·24	211,547	3·83	206,760	3·86
Sind, Punjab and Delhi	282,027	2·55	501,495	5·24	416,214	4·63	290,591	2·86	383,945	3·32
South Indian	118,616	2·72	89,126	2·23	101,895	2·60	103,318	2·74	150,421	4·15
Rajputana	—	—	123,331	3·62	117,916	3·31	112,955	3·99	85,771	3·40
Rajputana-Malwa	347,054	3·94	—	—	—	—	—	—	—	—
Northern Bengal	76,145	3·63	59,491	3·02	10,099	0·60	20,253	1·43	*−4,963*	*−0·45*
Panjab Northern	36,297	0·85	56,417	1·40	39,059	1·54	2,909	0·02	9,806	0·50
Patna-Gaya	17,915	4·87	21,126	6·56	10,179	3·58	* Not open			
Rangoon and Irawadi Valley	64,508	5·04	52,108	4·23	14,774	1·17	6,715	0·60	*−10,118*	*−1·14*
Tirhut	20,783	3·43	19,072	3·70	10,782	2·16	10,880	2·23	9,030	2·03

* This was a famine year, when large quantities of grain were moved from one part of India to another.

59. It is shown by the accompanying tables that a gross sum of 54,499,780*l.* has been advanced on interest to the Guaranteed Railway Companies since the commencement of railways in India up to the 31st December 1881, and that, during the same period, a sum of 29,537,340*l.* (exclusive of half surplus profits) has been earned by the railways, leaving a net amount of 24,962,440*l.* which has been paid by the State. To this must be added the sum of 3,462,679*l.*, which had been advanced to the East Indian Railway Company in excess of their earnings for 25 years at the time of its purchase, raising the whole amount of net advances on account of interest to the present time to 28,425,119*l.* This sum does not include simple interest on such advances. Guaranteed interest.

60. The surplus profits during the past year, that is, the receipts on certain guaranteed lines in excess of the guaranteed interest, amounted to 652,195*l.*, being an increase of 447,550*l.* over the year 1880. (*See* Table, p. 32.)

61. This is exclusive of the East Indian Railway, the surplus profits from which, after payment of the annuity, interest on the capital advanced, contribution to Provident Fund, &c., amounted to 1,031,933*l.*, of which 825,547*l.* was retained by Government. This is at 2*s.* = a rupee. Under the old contract the Government share could only have been about 630,000*l.*

GUARANTEED INTEREST.—INDIAN RAILWAYS.

STATEMENT of the Total Amount of INTEREST advanced to each of the under-mentioned Railway Companies to 31st December 1881.

Railway Company.	Interest advanced to 31st December 1880.	Interest advanced during 1881.*			Total.
		England.	India.	Total.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Bombay, Baroda and Central India - -	6,670,222 16 7	400,329 11 8	185 8 3	400,514 19 11	7,070,737 16 6
Eastern Bengal - -	2,340,232 7 7	153,295 13 4	647 8 3	153,943 1 7	2,494,175 9 2
Great Indian Peninsula	19,249,162 1 2	1,141,266 5 0	3,943 15 0	1,145,210 0 0	20,394,372 1 2
Madras - - -	9,459,089 1 2	524,000 2 6	—	524,000 2 6	9,983,089 3 8
Oudh and Rohilkund -	2,609,948 10 3	288,541 9 10	795 10 0	289,336 19 10	2,899,285 10 1
Sind, Punjab and Delhi	8,591,603 6 7	553,039 15 0	722 6 5	553,762 1 5	9,145,365 8 0
South Indian - -	2,308,759 10 2	203,994 19 10	—	203,994 19 10	2,512,754 10 0
Total - - £	51,229,017 13 6	3,264,467 17 2	6,294 7 11	3,270,762 5 1	54,499,779 18 7

* It will be observed that the Interest advanced *during* the year is here given, while the amount deducted from the net receipts to shew the surplus profits is that which is advanced for the year during which these receipts were realized. It is the practice to pay the guaranteed interest the day after the half year for which it is due has closed.

India Office, 4th April 1882. THOS. W. KEITH, Accountant General.

A STATEMENT shewing approximately the Amounts advanced on account of GUARANTEED INTEREST to the several under-mentioned Railway Companies to 30th June 1881, beyond the amount of Net Revenue applied thereto.

Railway Company.	Total Amount advanced to 31st December 1881.*	Aggregate of Net Revenue Balances for the several half years to 30th June 1881, inclusive.	Net Amount advanced.
	£	£	£
Bombay, Baroda and Central India - -	7,070,738	3,905,386	3,165,352
Eastern Bengal - - - -	2,494,175	2,163,794	330,381
Great Indian Peninsula - - -	20,394,372	13,783,276	6,611,096
Madras - - - - -	9,983,089	4,339,882	5,643,207
Oudh and Rohilkund - - -	2,899,286	1,236,082	1,663,204
Sind, Punjab and Delhi - -	9,145,365	3,080,767	6,064,598
South Indian - - - -	2,512,755	1,028,153	1,484,602
Total* - - £	54,499,780	29,537,340	24,962,440

* The Interest for the half year to 30th June 1881 not being paid until the succeeding half year.

India Office, 4th April 1882. THOS. W. KEITH, Accountant General.

STATEMENT shewing the REVENUE from the INDIAN RAILWAYS in 1880 and 1881, as given in the Accounts passed by Government.

[*Note.—In this Statement Rupees have been converted into Sterling as follows:—East Indian at Rupee = 1s. 10d. (for comparison with previous years, that being the old Contract Rate), and also at Rupee = 2s. (as for State lines); the Guaranteed Lines at their several Contract Rates; the State Lines at Rupee = 2s. (as in previous years).*]

Railway.		Receipts.				Expenditure.			Percentage of Expenditure to Gross Receipts.	Net Receipts.
		Passengers.	Goods.	Miscellaneous.	Total.	Maintenance.	Working, &c.	Total.		
		£	£	£	£	£	£	£		£
East Indian at Rupee=1s. 10d.	1881	1,090,112	2,955,195	117,411	4,162,718	399,096	926,694	1,325,790	31·84	2,836,928
	1880	*1,070,049*	*2,734,682*	*131,904*	*3,936,635*	*404,072*	*896,742*	*1,300,814*	*33·04*	*2,635,821*
East Indian at Rupee = 2s.	1881	1,189,213	3,223,849	128,085	4,541,147	435,379	1,010,937	1,446,316	31·84	3,094,831
	1880	*1,167,327*	*2,983,289*	*143,895*	*4,294,511*	*440,805*	*978,264*	*1,419,069*	*33·04*	*2,875,442*
GUARANTEED RAILWAYS.										
Bombay, Baroda and Central India	1881	305,295	567,156	20,852	893,303	83,921	282,693	366,614	41·04	526,689
	1880	*247,547*	*474,982*	*33,205*	*755,734*	*69,491*	*252,233*	*321,724*	*42·57*	*434,010*
Eastern Bengal	1881	148,251	315,352	59,084	522,687	31,011	182,826	213,837	40·91	308,850
	1880	*136,402*	*263,383*	*52,696*	*452,481*	*36,335*	*166,418*	*202,753*	*42·85*	*249,728*
Great Indian Peninsula	1881	583,772	2,313,798	40,972	2,938,542	329,586	1,122,170	1,451,756	49·40	1,486,786
	1880	*562,060*	*1,678,796*	*46,586*	*2,287,382*	*317,044*	*952,329*	*1,269,373*	*55·53*	*1,018,009*
Madras	1881	242,267	319,499	16,771	578,537	114,977	273,274	388,251	67·11	190,286
	1880	*233,368*	*306,325*	*25,207*	*564,900*	*113,925*	*271,571*	*385,496*	*68·24*	*179,404*
Oudh and Rohilkund	1881	205,906	252,714	34,253	492,873	68,348	226,955	295,303	59·91	197,570
	1880	*191,316*	*221,667*	*32,532*	*445,515*	*61,476*	*193,598*	*255,074*	*57·25*	*190,441*
Sind, Punjab and Delhi	1881	334,014	521,969	76,647	932,630	140,338	510,265	650,603	69·76	282,027
	1880	*401,831*	*617,308*	*118,583*	*1,137,722*	*108,524*	*527,703*	*636,227*	*52·47*	*501,495*
South Indian	1881	201,868	147,731	10,321	359,920	68,139	173,165	241,304	67·04	118,616
	1880	*197,657*	*138,567*	*4,903*	*341,127*	*54,836*	*197,165*	*252,001*	*73·87*	*89,126*
Totals for East Indian and Guaranteed Railways	1881	3,210,586	7,662,068	396,985	11,259,639	1,271,709	3,782,275	5,053,984	45·34	6,205,655
	1880	*3,137,448*	*6,684,317*	*457,607*	*10,279,372*	*1,202,436*	*3,539,281*	*4,741,717*	*46·60*	*5,537,655*

STATEMENT shewing the REVENUE from the INDIAN RAILWAYS in 1880 and 1881, as given in the Accounts passed by Government—*continued.*

Railway.		Receipts.				Expenditure.			Per-centage of Expenditure to Gross Receipts.	Net Receipts.
		Passengers.	Goods.	Miscellaneous.	Total.	Maintenance.	Working, &c.	Total.		
STATE RAILWAYS.		£	£	£	£	£	£	£		£
Calcutta and South-Eastern	1881	8,328	3,709	3,214	15,251	4,473	5,658	10,131	66·42	5,120
	1880	*7,687*	*3,330*	*3,193*	*14,210*	*3,079*	*7,055*	*10,134*	*71·32*	*4,076*
Cawnpore and Farrukhabad	1881	15,417	12,211	230	27,858	3,918	15,516	19,434	69·76	8,424
	*1880**	*206*	*10*	*4*	*220*	*Not stated.*	*513*	*513*	*233·18*	*Loss 293*
Dhond and Manmad	1881	—	—	— Worked by the Great Indian Peninsula Railway Company.				—	—	—
	1880	*32,083*	*33,976*	*3,451*	*69,510*	*9,874*	*50,814*	*60,688*	*87·31*	*8,822*
Holkar and Sindhia-Nimach	1881	74,112	119,323	1,183	194,618	39,400	94,868	134,268	68·99	60,350
	1880	*57,971*	*78,384*	*3,793*	*140,148*	*27,267*	*76,539*	*103,806*	*74·07*	*36,342*
Indus Valley and Kandahar	1881	149,870	354,139	28,860	532,869	80,903	337,725	418,628	78·56	114,241
	1880	*180,391*	*400,833*	*66,042*	*647,266*	*75,717*	*378,123*	*453,840*	*70·10*	*193,426*
Muttra-Hathras	1881	8,978	4,247	309	13,534	1,383	7,981	9,364	69·19	4,170
	1880	*8,772*	*4,465*	*285*	*13,522*	*1,468*	*5,981*	*7,449*	*55·09*	*6,073*
Nagpur and Chhatisgarh	1881	8,750	18,931	472	28,153	3,681	17,866	21,547	76·53	6,606
	1880	*1,971*	*8,382*	*42*	*10,395*	*Not stated.*	*8,268*	*8,268*	*76·52*	*2,127*
Nalhati	1881	4,599	1,940	167	6,706	1,447	3,860	5,307	79·14	1,399
	1880	*4,918*	*1,908*	*166*	*6,992*	*2,570*	*4,795*	*7,365*	*105·33*	*Loss 373*
Northern Bengal	1881	53,692	102,852	3,385	159,929	21,029	62,755	83,784	52·39	76,145
	1880	*53,110*	*82,304*	*9,516*	*144,930*	*19,046*	*66,393*	*85,439*	*58·95*	*59,491*
Patna-Gaya	1881	34,684	15,944	715	51,343	3,792	29,636	33,428	65·11	17,915
	1880	*33,810*	*13,785*	*561*	*48,156*	*4,230*	*22,800*	*27,030*	*56·13*	*21,126*
Punjab Northern	1881	135,430	199,022	12,841	347,293	48,457	262,539	310,996	89·54	36,297
	1880	*107,973*	*186,498*	*42,357*	*336,828*	*30,797*	*249,614*	*280,411*	*83·25*	*56,417*
Rajputana	1881	223,570	490,991	9,664	724,225	93,495	344,026	437,521	60·41	286,704
	1880	*106,688*	*256,985*	*8,699*	*372,372*	*50,645*	*198,396*	*249,041*	*66·88*	*123,331*
Rajputana (Western)	1881	— The results of this line are included with those of the Rajputana Railway, to which it is now amalgamated.								—
	1880	*22,073*	*30,343*	*12,594*	*65,010*	*5,259*	*50,513*	*55,772*	*85·78*	*9,238*
Rangoon and Irawadi Valley	1881	81,090	71,555	1,717	154,362	21,886	67,968	89,854	58·21	64,508
	1880	*74,522*	*55,818*	*1,931*	*132,271*	*21,190*	*58,973*	*80,163*	*60·60*	*52,108*
Sindhia	1881	15,089	9,769	182	25,040	3,768	9,455	13,223	52·81	11,817
	1880	*12,587*	*5,663*	*13,186*	*31,436*	*4,422*	*18,648*	*23,070*	*73·38*	*8,366*
Tirhut	1881	22,971	23,918	1,810	48,699	6,696	21,220	27,916	57·32	20,783
	1880	*22,627*	*20,147*	*2,518*	*45,292*	*6,657*	*19,563*	*26,220*	*57·89*	*19,072*
Wardha Coal†	1881	3,606	13,009	30,984	47,599	2,465	47,206	49,671	104·35	Loss 2,072
	1880	*2,726*	*7,458*	*11,260*	*21,444*	*2,383*	*32,309*	*34,692*	*161·70*	*Loss 13,248*
Native States‡ — Amraoti	1881	—	—	— Worked by the Great Indian Peninsula Railway Company.				—	—	—
	1880	*899*	*4,107*	*81*	*5,087*	*723*	*4,000*	*4,723*	*92·84*	*364*
Native States‡ — Khamgaon	1881	—	—	— Worked by the Great Indian Peninsula Railway Company.				—	—	—
	1880	*362*	*2,212*	*163*	*2,737*	*310*	*1,934*	*2,244*	*81·99*	*493*
Native States‡ — Mysore	1881	9,580	3,385	187	13,152	Not stated.	7,777	7,777	59·14	5,375
	1880	—	—	— *This line was not opened until 1st February 1881.*				—	—	—
Native States‡ — Nizam's	1881	29,490	44,155	2,038	75,683	7,424	38,982	46,406	61·32	29,277
	1880	*30,877*	*37,431*	*1,963*	*70,271*	*7,258*	*40,583*	*47,841*	*68·08*	*22,430*
Totals for State Railways	1881	879,256	1,489,100	97,958	2,466,314	344,217	1,375,038	1,719,255	69·71	747,059
	1880	*762,253*	*1,234,039*	*181,805*	*2,178,097*	*272,895*	*1,295,814*	*1,568,709*	*72·02*	*609,388*
Grand Total for all Railways	1881	4,089,842	9,151,168	484,943	13,725,953	1,615,926	5,157,313	6,773,239	49·84	6,952,714
	1880	*3,899,701*	*7,918,356*	*639,412*	*12,457,469*	*1,475,331*	*4,835,095*	*6,310,426*	*51·17*	*6,147,043*

STATEMENT shewing the Amount of SURPLUS PROFITS earned by Guaranteed Railways to 31st December 1881 inclusive.

Railway Company.	To end of 1877.	Half year to 30th June 1878.	Half year to 31st Dec. 1878.	Half year to 30th June 1879.	Half year to 31st Dec. 1879.	Half year to 30th June 1880.	Half year to 31st Dec. 1880.	Half year to 30th June 1881.	Half year to 31st Dec. 1881.	Total.
	£	£	£	£	£	£	£	£	£	£
Bombay, Baroda and Central India	36,929	—*	—	—*	—	—*	—	158,450	—	195,379
Eastern Bengal	174,229	26,158	64,981	317	63,257	—	99,197	4,414	149,764	582,317
East Indian	3,861,756	539,047	305,884	679,823	468,967	—†	—†	—†	—†	5,855,427†
Great Indian Peninsula	775,785	364,944	—	112,569	—	101,576	—	338,319	1,248	1,694,441
Sind, Punjab and Delhi	—	—	—	—	—	3,872	—	—	—	3,872
Total - £	4,848,699	930,149	370,815	792,709	532,224	105,448	99,197	501,183	151,012	8,331,436

* Surplus profits were earned by the Bombay, Baroda and Central India Railway Company during these half years, but no division took place, owing to the special agreement that all surplus profits should be applied to the construction of the Nerbudda Bridge.

† Surplus profits of the East Indian Railway after it had been acquired by the State are omitted in this Statement.

India Office, 10th May 1882. THOS. W. KEITH, Accountant General.

GUARANTEED RAILWAYS.

Year.	Capital expended to 31st March.	Net Revenue for Year to 31st December.	Guaranteed Interest for Year to 31st December.	Interest in excess of Revenue.	Revenue in excess of Interest.
	£	£	£	£	£
1870 - -	83,910,587	2,846,600	4,344,113	1,497,513	—
1871 - -	87,686,857	2,686,260	4,544,764	1,858,504	—
1872 - -	90,183,585	2,869,223	4,603,853	1,734,630	—
1873 - -	90,660,830	3,185,069	4,613,573	1,428,504	—
1874 - -	91,353,883	3,956,071	4,651,088	695,017	—
1875 - -	92,441,794	3,576,514	4,641,979	1,065,465	—
1876 - -	93,392,600	4,442,430	4,658,947	216,517	—
1877 - -	94,108,059	6,117,226	4,662,635	—	1,454,591
1878 - -	95,430,863	5,002,028	4,708,134	—	293,894
1879 - -	96,444,666	5,062,188	4,748,233	—	313,955
1880* - -	65,907,288	2,662,213	3,263,179	600,966	—
1881* - -	66,349,320	3,110,824	3,272,651	161,827	—

* East Indian Railway excluded.

RESULTS of WORKING the GUARANTEED RAILWAYS for the YEAR ended 31st December 1881.

Railway Company.	Net Revenue.	Guaranteed Interest.	Revenue in excess of Interest.	Interest in excess of Revenue.	Extra Dividend (in excess of Guaranteed Interest) received by the Companies as Surplus Profits.	
					Rate per Cent. for Half Year to 30th June 1881.	Rate per Cent. for Half Year to 31st Dec. 1881.
GUARANTEED.	£	£	£	£	£ s. d.	£ s. d.
Bombay, Baroda and Central India	526,689	400,515	126,174	—	0 17 6	—
Eastern Bengal - - -	368,850	153,720	155,130	—	0 2 0	2 12 0
Great Indian Peninsula - -	1,486,786	1,145,210	341,576	—	0 15 0	—
Madras - - - -	190,286	524,000	—	333,714	—	—
Oudh and Rohilkund - -	197,570	291,414	—	93,844	—	—
Sind, Punjab and Delhi - -	282,027	553,797	—	271,770	—	—
South Indian - - - -	118,616	203,995	—	85,379	—	—
Total - - - - £	3,110,824	3,272,651	622,880	784,707	1 14 6	2 12 0

NET EARNINGS of the INDIAN RAILWAYS during 1881.

Railway.	Amount.	Per Train Mile.	Per-centage of Net Earnings to Gross Receipts.
	Rs.	Rs.	
East Indian*	3,10,80,859	3·72	68·38
GUARANTEED.			
Bombay, Baroda and Central India	57,45,704	3·45	58·96
Eastern Bengal	32,31,402	4·34	63·00
Great Indian Peninsula†	1,62,19,488	2·07	50·60
Madras	20,75,856	1·11	32·89
Oudh and Rohilkund	19,75,699	1·49	40·09
Sind, Punjab and Delhi	32,19,035	1·15	32·12
South Indian	12,37,726	0·99	32·96
Total and Averages for East Indian and Guaranteed Railways	6,47,85,769	2·56	55·18
STATE.			
Calcutta and South-Eastern	51,205	1·25	33·58
Cawnpore and Farrukhabad	84,238	0·63	30·24
Dhond and Manmad	Worked by the Great Indian Peninsula Railway Company.		
Holkar and Sindhia-Nimach	6,03,504	0·92	31·01
Indus Valley and Kandahar	11,42,412	0·64	21·44
Muttra-Hathras	41,703	0·95	30·81
Nagpur and Chhatisgarh	66,056	0·70	23·47
Nalhati	13,985	0·37	20·86
Northern Bengal	7,61,453	1·46	47·61
Patna-Gaya	1,79,146	1·52	34·89
Punjab Northern	3,62,968	0·32	10·46
Rajputana	28,67,041	0·99	39·59
Rangoon and Irawadi Valley	6,45,078	1·44	41·79
Sindhia	1,18,166	1·77	47·19
Tirhut	2,07,833	1·28	42·68
Wardha Coal	— *20,723*	*—0·28*	*— 4·35*
Total and Averages for State Railways	71,24,065	0·86	29·96
NATIVE STATES.			
Amraoti	Worked by the Great Indian Peninsula Railway Company.		
Khamgaon			
Mysore	53,753	0·72	40·86
Nizam's	2,92,774	1·15	38·68
Total and Averages for Native State Railways	3,46,527	1·06	39·01
Total and Averages for all Railways	7,22,56,361	2·10	50·86

* Includes Dildarnagar-Ghazipur State Line.
† Includes Dhond and Manmad, Amraoti and Khamgaon State Lines.

TRAFFIC AND WORKING.

62. The tables in the latter part of this Report (pages 50—59) furnish detailed information connected with the passenger and goods traffic for the year 1881, and show that the work done has been greater than in any previous year. The train mileage amounted to 34,403,205, compared with 30,172,323 of the year 1880. The passengers carried one mile reach the figure of 2,844,207,333, compared with 2,684,306,361 of the previous year. The minerals and goods, treated in the same way, show 2,307,743,823, compared with 1,829,939,029. The total number of passenger tickets, exclusive of season tickets, exceeded that of the previous year by 4,198,925, being 52,239,865 in 1881, and 48,040,940 in 1880. The mineral traffic was 1,574,081 tons last year, and 1,113,967 in the previous year. General merchandise shows an excess of 2,297,831 tons, having been 9,339,170 in 1880 and 11,637,001 in 1881.

63. Taking into account the addition to mileage open, the passenger traffic does not exhibit any considerable advance, the number carried per mile being 5,584 in

1881, 5,490 in 1880, and 5,140 in 1879. The increase in the goods traffic is more marked, the tons carried per mile being 1,401 in 1881, 1,064 in 1880, and 1,049 in 1879.

64. An analysis of the passenger traffic shows that the lower classes constituted 97·74 per cent. of the whole, the second class having been 1·74, and the first only ·39 per cent. It may also be roughly computed that on an average the first-class passenger travelled a distance of 90 miles and paid Rs. 7, that the second class paid Rs. 2½ and travelled 52, and that the lower classes paid annas 11·3 and travelled 45 miles.

Gross receipts.

65. The gross receipts from all the open lines during the year amounted to Rs. 14,22,14,554, of which Rs. 4,54,50,504 was obtained on the East Indian Railway, Rs. 7,19,47,599 on the Guaranteed lines, Rs. 2,37,74,789 on the State, and Rs. 8,88,359 on the lines in Native States.

66. The gross receipts from passengers were Rs. 4,24,71,413; from goods, Rs. 9,52,95,589; and from miscellaneous sources, Rs. 44,47,552.

67. Compared with the previous year's returns, which were given in sterling, and applying the 2*s.* rate to both, the receipts last year show an excess of 2,166,300*l.* There has been an improvement more or less in all the lines with the exception of the Sind, Indus Valley, and Punjab Northern, the falling off in which is due to the cessation of military operations in Afghanistan. Particulars of each railway in its various departments will be found in Table 3 on pages 56 and 57.

68. The receipts per mile open were: on the whole system, Rs. 15,202; on the guaranteed lines (including East Indian), Rs. 18,640; on the East Indian, Rs. 29,941; on the Great Indian Peninsula, Rs. 22,200; on the State lines, Rs. 8,070; on the Rajputana, Rs. 9,975; on the Northern Bengal, Rs. 6,923; on the Rangoon and Irawadi Valley, Rs. 9,933.

69. The receipts per train mile were Rs. 4·13: from the Guaranteed lines they averaged Rs. 4·54, and from the State lines Rs. 3·28.

Expenditure.

70. The total expenditure on maintenance and working was Rs. 7,01,00,567, the percentage of gross receipts being 49·29 compared with 51·13 of the previous year. On the Guaranteed lines the proportion averaged 44·81 per cent., varying from 31·62 on the East Indian, 36·99 on the Eastern Bengal, and 41·04 on the Bombay and Baroda, to 67·11 on the Madras, and 67·87 on the Sind, Punjab and Delhi. The average proportion on the State lines was 70·07. The Northern Bengal was the lowest, viz., 52·39. The expenses per train mile were lowest on the Rajputana and the Northern Bengal, being Rs. 1·51 on the former and Rs. 1.60 on the latter. On the East Indian they were Rs. 1·72, on the South Indian Rs. 1·99, and on the Great Indian Peninsula, Rs. 2·02.

71. The following table compares the cost of performing certain work on each line. Additional details relating to each railway will be found in Table 4, on pages 58 and 59:—

Railway.	Working Expenses per Train Mile.	Cost of Maintenance.		Cost of Locomotive Power per Train Mile.	Average Cost of carrying		Average Profit on carrying	
		Per Train Mile.	Per Open Mile.		One Passenger One Mile.	One Ton One Mile.	One Passenger One Mile.	One Ton One Mile.
	Rs.	Rs.	Rs.	Rs.	*d.*	*d.*	*d.*	*d.*
East Indian* - - -	1·72	0·52	2,879	0·45	·125	·204	·248	·529
GUARANTEED.								
Bombay, Baroda and Central India - - -	2·40	0·55	2,062	0·86	·186	·357	·165	·734
Eastern Bengal - - -	2·55	0·40	1,736	0·67	·166	·39	·206	·91
Great Indian Peninsula† -	2·02	0·46	2,489	0·77	·251	·457	·108	·598
Madras - - -	2·27	0·67	1,462	0·71	·222	·618	·071	·439
Oudh and Rohilkund - -	2·23	0·52	1,249	0·73	·123	·402	·173	·222
Sind, Punjab and Delhi -	2·43	0·54	2,309	0·87	·213	·564	·084	·368
South Indian - - -	1·99	0·56	1,089	0·70	·132	·81	·177	·022
STATE.								
Rajputana - - - -	1·51	0·32	1,289	0·74	·192	·546	·074	·459

* Includes Dildarnagar-Ghazipur State line. † Includes Dhond and Manmad, Amraoti and Khamgaon State lines.

72. While there has been an aggregate augmentation of traffic and of receipts during the year, the different railways have not advanced in the same degree. Those which have shown the greatest progress are the Great Indian Peninsula, the East Indian, the Eastern Bengal, the Rajputana, and the Bombay, Baroda and Central India. The general revival of trade during the year produced an increase in their great commercial routes. Both the export and import trade have been active, especially in grain, seeds, and cotton.

73. The tables on pages 42—49 contain particulars of the commodities which constituted the bulk of the traffic on the different lines in 1881. The great increase on the previous year has been in grain and cotton.

74. The importation into Bombay by the Great Indian Peninsula Railway alone shows the following results for the last two years :—

	1880.	1881.
Raw cotton - - - - Bales	2,424,238	2,708,094
Seeds - - - - Maunds	3,549,677	4,873,669
Wheat - - - - Maunds	3,954,159	13,480,437

75. This large traffic in wheat for export to Europe was due in a great measure to an abundant harvest, and a large European demand in consequence of deficient crops in the west.

RATES AND FARES.

76. The most important measure taken lately has been to reduce the third class passenger fares from 3 pies to 2½ pies per mile on the sections of the East Indian Railway line between Allahabad, Jabalpur, and Delhi. The change did not take place till the commencement of the present year, so that the effect cannot yet be estimated. The occurrence of an extraordinarily large fair at Allahabad in January last is also a disturbing element in estimating the result. All that can be said at present is that the aggregate passenger receipts throughout the line show an increase over the previous year. The reduction of fares will be extended to the rest of the line from the 1st July 1882. On other lines trials have been made with a 2-pie rate, and have been acknowledged to be successful. In their Report for the half year ending the 30th June 1882, the Directors of the Madras Railway Company say that "the reduction of the fares of the third class from 3 to 2 pies per mile continues to be attended "with marked success. Not only have the numbers been increased beyond all former "precedents, amounting to 2,129,599, but, with the exception of December 1877 and "June 1878, the actual earnings from this class were greater than in any former half "year since the line was completed in 1873."

77. Mr. Mathew, the late Agent of the Bombay, Baroda and Central India Railway, also reports, in October 1881, "The policy which the Board has sanctioned of low "fares and rates has been successful in operation, and further reductions, within "profitable rates, may, it is probable, be soon adopted with advantage." With these examples, and with the general experience which has been gained with low fares on State lines, I cannot but think that before long the 2-pie rate will be acknowledged as the proper one for almost universal application to the lowest class of passengers on Indian lines.

78. There has been considerable discussion in India on the question of railway rates to the seaboard for grain for export to Europe by the two routes which connect the North-West of India with Calcutta and with Bombay respectively. The distance from Delhi to Calcutta by the East Indian Railway is 954 miles. From Delhi to Bombay, by the Rajputana line and the Bombay and Baroda Railway, it is 889 miles. The former is a broad gauge line with easy gradients, and a large steady traffic each way. The latter route has a narrow gauge line for 579 miles with somewhat heavy gradients, and a broad gauge for 310 miles of almost level line. The cost of transport to Europe depends upon the shipping (including the port dues) as well as upon the railway charges, and the bulk of the traffic may be expected to flow in the direction which is less costly. It thus becomes the object of the managers of each line from Delhi to the east and west ports to make the lowest charges compatible with fair earnings, and if a healthy competition follows it is for the benefit of the community, and especially of the producer and trader. If the traffic be worked at a loss the competition would be carried beyond legitimate bounds, because the loss incurred by one description of traffic would have to be made good by another, which would thus have to bear an unfair charge. The minimum rate, which must be based primarily on the circumstances affecting the produce to be carried, should include such a margin over the cost of transport as would leave a fair amount of profit on the transaction. Economy in management and working

thus becomes essential for success. The original cost of the lines, and the amount of earnings requisite to pay interest on the capital, are evidently not matters which should rule the charges by competing routes. It may be accepted as an axiom in railway economy that the general benefits of railways are inversely as their rates are an impediment to their use. There can be no absolute rule of universal application for regulating charges. Facts derived from the experience of each district must be the guide. But, as respects India, the low wages of the mass of the people, and their consequent inability to afford but little for locomotion and for transport, as well as the competition between that country and America for the trade in grain and seeds, are facts which must continually be borne in mind by railway managers.

79. Another question requiring consideration is that of goods classification. Now that through booking over several lines is largely practised, it is very desirable that goods should be classified on one uniform system, and that the total through charge should be clearly understood by consignors.

80. The following rates and fares are now in force :—

FARES and RATES in use on the INDIAN RAILWAYS during 1881.

Railway.	Passengers. Fare for travelling One Mile. First Class.	Second Class.	Intermediate Class.	Third Class.	Fourth or Coolie Class.	Goods. Rate for conveying One Ton One Mile. First or Lowest Class.	Second Class.	Third Class.	Fourth Class.	Fifth or Highest Class.	Special.
	pies.	pies.	pies.	pies.	pies.	pies.	pies.	pies.	pies.	pies.	pies.
East Indian	18	9	4·5	3	—	9·073	13·61	18·146	22·683	27·22	From 2·722 to 9·073.
GUARANTEED.											
Bombay, Baroda and Central India.	12	6	—	Mail 3 / Ordinary 2·5	—	10·08	15·12	21·17	30·24	42·34	To 8·06.
Eastern Bengal	12	6	—	4·5	3	9·07	18·14	27·22	—	—	From 3·82 to 6·44.
Great Indian Peninsula.	18	9	—	4	2·5	10	14	23·8	34	48	From 5·65 to 8.
Madras — Single	18	7	—	2	—	10	14	18	24	36	From 4 to 8.
Madras — Return	27	10·5	—	—	—						
	Upper	Upper Reserved Cmptmnt.	Lower Reserved	Lower	Lower & Lower Reserved Cmptmnt.	Low		Middle		High	
Oudh and Rohilkund	9	36	3	2·5	15, 20, & 24	6·80	—	13·61	—	27·22	From 4·53 to 5·44.
Sind, Punjab and Delhi.	12	8	4	2·25 & 2·5	—	9·07	13·61	18·15	22·68	27·22	From 6·80 to 4·54.
South Indian	18	6	—	2 & 3* / 2·5†	—	Rates varying from 56 pies to 4 pies per ton per mile.					
STATE.											
Calcutta and South-Eastern.	18	9	—	3	1·93	9·07	18·14	27·22	—	—	From 6·8 to 7·2.
Cawnpore and Farrukhabad.	15	6	—	2	—	9·07	13·61	18·15	22·68	27·22	*Various.*
Dhond and Manmad	—	—	Worked by the Great Indian Peninsula Railway.						—	—	—
Holkar and Sindhia-Nimach.	12	8	—	4	2	10·88	16·33	21·77	27·22	32·66	From 4·08‡
Indus Valley and Kandahar.	12	8	—	Mail 2·5 & 2	—	9·07	13·61	18·15	22·68	27·22	From 6·81 to 3·89.
Muttra-Hathras	13·42	—	5·46	2·97	—	7·51	15·02	30·04	—	—	*Various.*
Nagpur and Chhatisgarh.	18	8	—	—	2	10	14	24	34	48	From 5 to 8.
Nalhati	18	6	—	3	—	Rates varying from 15·56 pies to 7·25 pies per ton per mile.					
Northern Bengal	18	9	4·5	2·5	—	9·07	18·14	27·22	—	—	From 5·44 to 22·68.
Patna-Gaya	18	9	—	3	—	Rates varying from 10·48 pies to 4·48 pies per ton per mile.					
Punjab Northern	12	8	—	2·5	2	9·07	13·61	18·15	22·68	27·22	From 4·54 to 6·8.
Rajputana	12	8	—	4	2	10·8	16·3	21·7	27·2	32·6	From 4·08 to 8·16.
Rangoon and Irawadi Valley.	13·73	4·30	—	2·97	—	9·68	—	—	—	—	From 3·40.
Sindhia	18	9	4·5	3	—	9·073	13·61	18·146	22·683	27·22	From 2·722 to 9·073.
Tirhut	18	9	—	2·5	—	Rates varying from 16·82 pies to 6·95 pies per ton per mile.					
Wardha Coal	18	9	—	4	2	10	14	24	34	48	From 5 to 8.
NATIVE STATES.											
Amraoti / Khamgaon	—	—	Worked by the Great Indian Peninsula Railway.						—	—	—
Mysore	12	6	—	3	—	One uniform rate of $\frac{1}{2}$ pie per maund per mile. For railway materials, $\frac{1}{4}$ pie per maund per mile.					
Nizam's	18	6	—	2	—	10	14	24	34	48	From 6 to 8.

* First half of year. † Second half of year. ‡ Ordnance and Commissariat stores are carried at 22·68 and 13·61 pies respectively.

Returns prepared by Mr. Rendel for the year 1881.

81. These returns are made up on the same principles as those of previous years, the data being taken from the tables which will be found in this Report, compared with the half-yearly reports of the various Companies. Exchange is taken in all cases at 1*s.* 10*d.* the rupee.

(*a*) Passenger Traffic.

—	East Indian, including Dildarnagar Branch.	Great Indian Peninsula, including Dhond and Manmad, and Berar Branches.	Madras.	Bombay, Baroda and Central India.	Sind, Punjab and Delhi.	Eastern Bengal.	Oudh and Rohilkund.	South Indian (Narrow Gauge).	Rajputana (State Line) (Narrow Gauge).	All together.
Average length open, miles	Miles. 1,516	Miles. 1,444½	Miles. 358	Miles. 444	Miles. 663½	Miles. 172	Miles. 546¾	Miles. 653	Miles. 726·5	Miles. 7,024½
(1.) Receipts from passenger traffic.	£ 1,091,791	£ 583,772	£ 242,267	£ 305,295	£ 334,014	£ 148,251	£ 188,746	£ 193,091	£ 204,939	£ 3,292,166
(2.) Passenger train miles run	No. 2,592,480	No. 2,278,824	No. 925,800	No. 779,422	No. 1,219,909	No. 306,600	No. 458,109	No. 470,686	No. 1,090,124	No. 10,121,951
(3.) Average passenger train mile receipts.	*s.* 8·49	*s.* 5·123	*s.* 5.23	*s.* 7·84	*s.* 5·48	*s.* 9·67	*s.* 8·24	*s.* 8·205	*s.* 3·78	*s.* 6·5
(4.) Number of passengers carried one mile.	No. 707,758,649	No. 389,855,507	No. 198,264,729	No. 208,661,526	No. 269,693,584	No. 95,620,566	No. 152,967,333	No. 149,889,681	No. 184,389,456	No. 2,357,101,033
(5.) Average sum received for carrying a passenger one mile.	*d.* ·373	*d.* ·359	*d.* ·293	*d.* ·351	*d.* ·297	*d.* ·372	*d.* ·296	*d.* ·309	*d.* ·266	*d* ·335
(6.) Average number of passengers in a train at any one time.	No. 273	No. 171	No. 214	No. 268	No. 222	No. 312	No. 334	No. 318	No. 169	No. 233
(7.) Average number of passenger trains per diem each way, supposing each train to traverse the whole line open.	No. 2·34	No. 2·16	No. 1·48	No. 2·4	No. 2·52	No. 2·44	No. 1·15	No. ·987	No. 2·05	No. 1·98
(8.) Average number of passengers passing over each mile of line daily (both ways).	No. 1,287	No. 740	No. 633	No. 1,287	No. 1,113	No. 1,523	No. 766	No. 628	No. 695	No. 919
(9.) Total working expenses for both goods and passengers, deducting miscellaneous receipts from them.	£ 1,191,147	£ 1,403,848	£ 369,896	£ 344,942	£ 551,342	£ 160,603	£ 226,568	£ 220,696	£ 392,202	£ 4,861,244
(10.) Average cost of running a train mile, passenger and goods miles assumed to cost the same.	*s.* 2·86	*s.* 3·58	*s.* 3·964	*s.* 4·163	*s.* 3·95	*s.* 4·32	*s.* 3·42	*s.* 3·5	*s.* 2·708	*s.* 3·38
(11.) Average cost of carrying a passenger one mile.	*d.* ·125	*d.* ·251	*d.* ·222	*d.* ·186	*d.* ·213	*d.* ·166	*d.* ·123	*d.* ·132	*d.* ·192	*d.* ·174

(*b*) Goods Traffic.

Average length open, miles	Miles. 1,516	Miles. 1,444½	Miles. 358	Miles. 444	Miles. 663½	Miles. 172	Miles. 546¾	Miles. 653	Miles. 726·5	Miles. 7,024½
(1.) Receipts from goods traffic	£ 2,948,435	£ 2,306,864	£ 317,917	£ 566,336	£ 512,407	£ 314,053	£ 230,343	£ 141,292	£ 450,058	£ 7,788,205
(2.) Goods train miles run	No. 5,757,500	No. 5,564,136	No. 940,446	No. 887,404	No. 1,572,284	No. 427,180	No. 866,516	No. 790,321	No. 1,805,660	No. 18,611,947
(3.) Average goods train mile receipts.	*s.* 10·24	*s.* 8·29	*s.* 6·76	*s.* 12·76	*s.* 6·52	*s.* 14·37	*s.* 5·33	*s.* 3·57	*s.* 4·985	*s.* 8·37
(4.) Tons of goods carried one mile.	Tons. 965,466,250	Tons. 524,575,439	Tons. 72,194,000	Tons. 124,476,944	Tons. 132,010,000	Tons. 57,983,200	Tons. 88,848,346	Tons. 40,728,038	Tons. 107,475,244	Tons. 2,113,757,461
(5.) Average sum received for carrying one ton one mile.	*d.* ·733	*d.* 1·055	*d.* 1·057	*d.* 1·091	*d.* ·932	*d.* 1·3	*d.* ·624	*d.* ·832	*d.* 1·005	*d.* ·885
(6.) Average number of tons in a goods train at one time.	Tons. 168	Tons. 94	Tons. 77	Tons. 140	Tons. 84	Tons. 132·6	Tons. 102	Tons. 51·5	Tons. 59·5	Tons. 113·5
(7.) Average number of goods trains per diem each way, supposing each train to run over the whole line open.	No. 5·20	No. 5·27	No. 1·5	No. 2·74	No. 3·25	No. 3·48	No. 2·17	No. 1·66	No. 3·4	No. 3·54
(8.) Average number of tons of goods passing over each mile of line daily (both ways).	Tons. 1,756	Tons. 995	Tons 230	Tons. 769	Tons. 548	Tens. 924	Tons. 446	Tons. 171	Tons. 405	Tons. 824
(9.) Total working expenses for both goods and passengers, deducting from them miscellaneous receipts, and demurrage on goods.	£ 1,191,147	£ 1,403,848	£ 369,896	£ 344,942	£ 551,342	£ 160,603	£ 226,568	£ 220,696	£ 392,202	£ 4,861,244
(10.) Average cost per train mile, goods and passenger miles assumed to cost the same.	*s.* 2·86	*s.* 3·58	*s.* 3·964	*s.* 4·163	*s.* 3·95	*s.* 4·32	*s.* 3·42	*s.* 3·5	*s.* 2·708	*s.* 3·38
(11.) Average cost of carrying a ton of goods one mile.	*d.* ·204	*d.* ·45	*d.* ·618	*d.* ·357	*d.* ·564	*d.* ·39	*d.* ·402	*d.* ·81	*d.* ·546	*d.* ·357

82. It will be noticed that,—

The best passenger traffic is found on the Eastern Bengal, 1,523 passengers per mile per diem, and the worst on the Madras and South Indian (narrow gauge), 633 and 628 respectively. The best goods traffic is found on the East Indian, 1,756 tons per mile per diem; the worst is found on the Madras and South Indian (narrow gauge), 230 tons and 171 tons respectively.

The lowest average cost per train mile is found this year (1881) on the Rajputana (narrow gauge), 2·7*s*., the East Indian following with 2·86*s*. The Eastern Bengal supplies, as last year, the highest cost, 4·32*s*.

The lowest average charge for carrying a passenger a mile is found on the Rajputana (narrow gauge), ·266*d*; the highest on the Eastern Bengal and East Indian, ·372*d*. and ·373*d*.

The lowest average charge for carrying a ton of goods a mile is found on the Oudh and Rohilkund, ·624*d*.; the highest on the Eastern Bengal, 1·3*d*.

The lowest average cost of carrying a passenger a mile is found on the Oudh and Rohilkund, East Indian, and South Indian (narrow gauge), ·123*d*., ·125*d*., and ·133*d*., respectively; the highest is found on the Great Indian Peninsula, ·251*d*.

The lowest average cost of carrying a ton of goods a mile is found on the East Indian, ·204*d*.; the highest on the South Indian (narrow gauge), ·81*d*.

The best average of passenger train loads is found on the Oudh and Rohilkund, 334 persons; the South Indian (narrow gauge) coming next with 312 persons; the worst is found on the Rajputana (narrow gauge), 169 persons; the Great Indian Peninsula coming next with 171 persons.

The best average of goods train loads is found on the East Indian, 168 tons; the worst on the South Indian (narrow gauge), 51·5 tons.

83. Taking the whole 7,024¼ miles included in these returns, it will be seen that the expenditure per train mile averages 3·38*s*., against 3·62*s*. in 1880; that the charge per passenger per mile averaged about ⅓rd of a penny, and the cost about ⅙th of a penny, or almost exactly the same as in 1880; that the charge for carrying a ton of goods or minerals a mile averaged ·885*d*., against ·98*d*. in 1880, a reduction of more than 10 per cent; that the cost of carrying a ton of goods or minerals averaged ·357*d*. against ·406*d*. in 1880, a reduction of 12½ per cent.; that the passenger train load averaged 233 persons against 246 in 1880; that the load of the goods trains averaged 113½ tons against 107 tons in 1880; and that the average traffic passing over each mile every day in 1881 was 919 persons and 824 tons of goods against 929 persons and 680 tons of goods in 1880.

84. These figures show a stationary condition in respect to passenger traffic, but an increase in the goods traffic, and a diminution in the working expenses, so large that, notwithstanding a considerable addition to the mileage open, the net revenue per mile per annum increased from 826*l*. in 1880 to 885*l*. in 1881.

Personal acknowledgment of assistance.

85. I take this, my last, opportunity of here expressing the obligations I am under to Mr. Rendel, the Consulting Engineer at this Office, for the valuable additions which for many years have been made to these Reports of his tables showing the working of the several lines from the unit of the ton mileage, cost, and earnings. To Mr. E. R. Cave-Browne, Mr. J. G. Deedes, and Mr. John Hewish, of the Accountant General's Department of this Office, I am also indebted for the statements relating to capital and guaranteed interest, which have been prepared in that Department. To Mr. Ernest C. Winchester, of the Registry Department, my thanks are due, for the help he has for several years given me in compiling the figured statements relating to Traffic, &c. I must likewise acknowledge my obligations to the officers of the Railway Companies in this country for the ready assistance which they have at all times afforded me, and to Colonel E. C. S. Williams, R.E., C.I.E., Deputy Government Director, for his advice and aid in the preparation of the present Report.

86. The question of making through booking arrangements with England, for wheat and seeds, is receiving consideration on the initiative of the Sind, Punjab and Delhi Railway Company, who are most desirous of introducing the system. Through the agency of Messrs. Cook and Son, tourist tickets at special rates for passengers travelling between Europe and India are also issued to and from the principal places in India, and it may not be inopportune to quote the testimony of so experienced an authority as Mr. Cook in regard to the comfort of railway travelling in India. He says, "We never travelled in any part of the globe where the carriages are better "constructed for their peculiar requirements than those are in India, and we say, "without hesitation, that there is no station accommodation on any railway in the "globe better adapted to meet the requirements of travellers than the stations on "many of the Indian railways." Booking arrangements between India and England.

87. In connection with the question of management, it may be mentioned that the subject of railway police has been receiving the consideration of the Government during the year, and that a Committee, consisting of Mr. T. B. Peacock, Commissioner of the Presidency Division, Lieutenant-Colonel H. M. T. Clarke, Officiating Assistant Inspector General, Government Railway Police, and Major W. A. J. Wallace, R.E., Manager and Engineer in Chief of the Northern Bengal State Railway, was appointed to inquire into the working of the police on the principal railways in India, in view to the adoption of one uniform system. Their report has not yet reached this country, but it is understood that a scheme for future police regulations has been submitted by this Committee to the Government of India. Police regulations.

88. The fuel used to work the railways during the year amounted to 559,660 tons of coal, 7,935 tons of coke, 9,360 tons of patent fuel, and 154,318 tons of wood, at a cost of Rs. 84,29,764, or, at the exchange of 2*s.* the rupee, 842,976*l.* In the previous year the cost of fuel amounted to 833,092*l.*, and the quantity consumed to 504,215 tons of coal, 7,077 tons of coke, 8,383 tons of patent fuel, and 183,634 tons of wood. The country coal used was 68·91 per cent. of the whole. In the previous year the proportion was 65·63 per cent. Fuel.

89. The following table furnishes particulars of the cost of fuel on the various lines:—

STATEMENT shewing the COST and CONSUMPTION of FUEL at the Point of Delivery (*i.e.*, not distributed over the Line) on the respective Lines during the Year 1881.

Railway.	COAL.						COKE.						PATENT FUEL.						WOOD.					
	Quantity.		Total Cost.	Average Cost per Ton.	Consumption.		Quantity.		Total Cost.	Average Cost per Ton.	Consumption.		Quantity.		Total Cost.	Average Cost per Ton.	Consumption.		Quantity.		Total Cost.	Average Cost per Ton.	Consumption.	
	English.	Indian.			Per Train Mile.	Per Vehicle per Mile.	English.	Indian.			Per Train Mile.	Per Vehicle per Mile.	English.	Indian.			Per Train Mile.	Per Vehicle per Mile.	English.	Indian.			Per Train Mile.	Per Vehicle per Mile.
	Tons.	Tons.	Rs.	Rs.	Lbs.	Lbs.	Tons.	Tons.	Rs.	Rs.	Lbs.	Lbs.	Tons.	Tons.	Rs.	Rs.	Lbs.	Lbs.	Tons.	Tons.	Rs.	Rs.	Lbs.	Lbs.
East Indian*	—	180,194	3,04,789	1·69	48·34	—	—	7,814	19,536	2·50	2·10	—	—	—	—	—	—	—	—	33	126	3·82	—	—
GUARANTEED.																								
Bombay, Baroda and Central India	33,435	—	5,83,689	17·46	44·93	1·59	—	—	—	—	—	—	20	—	320	16·0	0·03	—	—	868	4,664	5·37	1·16	0·04
Eastern Bengal	—	17,442	1,56,961	9·0	52·53	2·50	—	—	—	—	—	—	—	—	—	—	—	—	—	81	669	8·26	0·24	0·01
Great Indian Peninsula†	97,325	49,957	22,34,798	15·17	42·57	2·04	—	—	—	—	—	—	556	—	10,130	18·22	0·16	0·01	—	2,421	12,413	5·13	0·70	0·03
Madras	55	—	1,155	21·0	—	—	—	—	—	—	—	—	5,405	—	1,13,499	21·0	—	—	—	64,785	2,98,177	5·0	—	—
Oudh and Rohilkund	—	29,483	4,17,162	14·15	49·86	1·92	—	—	—	—	—	—	—	—	—	—	—	—	—	160	820	5·12	0·27	0·01
Sind, Punjab and Delhi	4,666	31,532	8,04,785	22·32	29·04	—	—	—	—	—	—	—	1,032	—	28,609	27·70	0·82	—	—	7,990	1,62,044	20·28	6·41	—
South Indian	15,279	—	2,66,035	17·5	27·13	1·36	—	—	—	—	—	—	—	—	—	—	—	—	—	4,379	20,801	4·8	7·79	0·39
Totals and averages, East Indian and Guaranteed Railways	150,760	308,608	47,69,374	10·38	42·05	1·88	—	7,814	19,536	2·50	2·10	—	7,013	—	1,52,558	21·75	0·34	0·01	—	80,717	4,99,714	6·19	2·76	0·09
STATE.																								
Calcutta and South-Eastern	—	1,060	9,926	9·06	58·12	2·73	—	—	—	—	—	—	—	—	—	—	—	—	—	5	21	4·20	0·27	0·01
Cawnpore and Farrukhabad	—	1,830	29,199	15·95	30·85	1·41	—	—	—	—	—	—	—	—	—	—	—	—	—	6	71	11·71	0·12	—
Dhond and Manmad	—	—	—	—	—	—	—	—	—	—	—	—	Worked by the Great Indian Peninsula Railway.						—	—	—	—	—	—
Holkar and Sindhia-Nimach	138	—	2,924	21·10	—	—	—	—	—	—	—	—	12	—	42‡	35	—	—	—	19,485	1,73,910	8·92	—	—
Indus Valley and Kandahar	15,804	—	4,61,139	29·18	19·79	0·88	—	—	—	—	—	—	2,334	—	47,692	20·43	2·92	0·13	—	27,881	2,46,196	8·83	34·92	1·54
Muttra-Hathras	—	666	13,454	20·18	34·23	2·26	—	—	—	—	—	—	—	—	—	—	—	—	—	10	77	7·70	0·53	0·04
Nagpur and Chhatisgarh	40	2,490	21,844	8·63	60·23	2·85	—	—	—	—	—	—	—	—	—	—	—	—	—	66	527	7·98	1·57	0·07
Nalhati	—	481	3,987	8·28	28·22	2·59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Northern Bengal	—	7,963	96,270	12·09	34·18	1·49	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Patna-Gaya	—	2,834	35,693	12·50	53·84	2·81	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Punjab Northern	—	21,757	7,05,397	32·42	37·73	5·79	—	—	—	—	—	—	—	—	—	—	—	—	—	9,355	1,11,698	11·94	16·22	2·49
Rajputana	6,384	32,389	8,33,775	21·63	29·99	1·50	121	2,978	24·4	0·09	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rangoon and Irawadi Valley	2,534	—	47,999	18·94	12·69	0·58	—	—	—	—	—	—	—	—	—	—	—	—	—	5,224	26,125	5·0	26·16	1·19
Sindhia†	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tirhut	—	2,175	26,767	12·30	30·12	1·64	—	—	—	—	—	—	—	—	—	—	—	—	—	84	415	4·92	1·17	0·06
Wardha Coal	93	1,456	14,754	5·02	88·55	5·17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
NATIVE STATES.																								
Amraoti	—	—	—	—	—	—	—	—	Worked by the Great Indian Peninsula Railway.										—	—	—	—	—	—
Khamgaon	—	—	—	—	—	—	—	—											—	—	—	—	—	—
Mysore§	93	—	See ‖ under "Wood."	—	—	—	—	—	—	—	—	—	1	—	See ‖ under "Wood."	—	—	—	—	1,202	11,841‖	23·80¶	1·46¶	0·14¶
Nizam's	105	—	2,973	28·31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10,283	55,510	5·40	—	—
Totals and averages, State and Native State Railways	25,191	75,101	23,11,101	23·04	39·88	2·43	—	121	2,978	24·4	0·09	—	2,347	—	48,112	20·49	2·92	0·13	—	73,601	6,26,391	8·51	9·15	0·69
Totals and averages, all Railways	175,951	383,709	70,80,475	12·65	40·64	2·33	—	7,935	22,514	2·83	1·09	—	9,360	—	2,00,670	21·43	0·98	0·07	—	154,318	11,26,105	7·29	6·59	0·46

* Includes Dildarnagar-Ghazipur State line.
§ This line was opened for traffic on 1st February 1881.
† Includes Dhond and Manmad, Amraoti and Khamgaon State lines
‖ Includes the cost of coal and patent fuel.
‡ Not known, as this line is worked at a mileage rate by the East Indian Railway.
¶ Calculated in terms of coal, in proportion of 1 of coal to 3 of wood.

90. The following table shews the number of locomotives and vehicles owned by the various lines:—

Railway.	Locomotives.				Vehicles.							
					Passenger Carriages (including Passenger Brake Vans, &c.).				Goods Trucks and Wagons (including Goods Brake Vans, &c.).			
	Number on 31st Dec. 1880.	Alterations during the Year 1881.		Total Number on 31st December 1881.	Number on 31st Dec. 1880.	Alterations during the Year 1881.		Total.	Number on 31st Dec. 1880.	Alterations during the Year 1881.		Total.	Total Number of Vehicles on 31st December 1881.
		Added.	Withdrawn.			Added.	Withdrawn.			Added.	Withdrawn.		
East Indian*	531	26	23	534	970	73	11	1,032	7,711	382	24	8,069	9,101
GUARANTEED.													
Bombay, Baroda and Central India	88	10	—	98	310	68	5	373	2,701	188†	129	2,760	3,133
Eastern Bengal	48	—	—	48	192	10	9	193	966	—	—	966	1,159
Great Indian Peninsula‡	438	—	—	438	1,314	105	61	1,358	7,852	—	—	7,852	9,210
Madras	157	—	—	157	589	6	4	591	2,774	5	8	2,771	3,362
Oudh and Rohilkund	123§	2	—	125	248	—	—	248	3,086	84	—	3,170	3,418
Sind, Punjab and Delhi	159	—	—	159	550	19	—	569	3,384	31	—	3,415	3,984
South Indian	108	12	2	118	459	35	—	494	1,550	57	—	1,607	2,101
Totals	1,652	50	25	1,677	4,632	316	90	4,858	30,024	747	161	30,610	35,468
STATE.													
Calcutta and South-Eastern	10	—	2	8	58	—	—	58	252	—	4	248	306
Cawnpore and Farrukhabad	11	—	—	11	11	91	4	98	150	73	4	219	317
Dhond and Manmad	—	—	—	Worked by the Great Indian Peninsula Railway.								—	—
Holkar and Sindhia-Nimach	52	2	—	54	193	40	—	233	785	106	—	891	1,124
Indus Valley and Kandahar	98	4	1	101	253	119	7	365	1,835	780	35	2,580	2,945
Muttra-Hathras	5	—	—	5	32	—	—	32	75	—	—	75	107
Nagpur and Chhatisgarh	12	—	—	12	31	31	—	62	344	24	—	368	430
Nalhati	6	—	2	4	11	—	1	10	24	—	—	24	34
Northern Bengal	40	—	4	36	158	—	8	150	780	—	—	780	930
Patna-Gaya	6	8	8	6	31	29	2	58	101	—	20	81	139
Punjab Northern	64	55	—	119	141	13	—	154	1,220	319	—	1,539	1,693
Rajputana	178	38	—	216	603	114	—	717	2,764	314	—	3,078	3,795
Rangoon and Irawadi Valley	31	—	—	31	184	15	—	199	651	—	15	636	835
Sindhia	1	4	—	5	12	13	—	25	19	23	—	42	67
Tirhut	10	4	—	14	60	9	—	69	252	50	—	302	371
Wardha Coal	5	1	1	5	9	—	—	9	161	—	1	160	169
Totals	529	116	18	627	1,787	474	22	2,239	9,413	1,689	79	11,023	13,262
NATIVE STATES.													
Amraoti Khamgaon	—	—	—	Worked by the Great Indian Peninsula Railway.							—	—	—
Mysore	—	7	—	7	—	41	—	41	—	77	—	77	118
Nizam's	9	—	—	9	58	3	—	61	107	13	—	120	181
Totals	9	7	—	16	58	44	—	102	107	90	—	197	299
Grand totals	2,190	173	43	2,320	6,477	834	112	7,199	39,544	2,526	240	41,830	49,029

* Includes Dildarnagar-Ghazipur State Line.

† Two accident-cranes included.

‡ Includes Dhond and Manmad, Amraoti and Khamgaon State Lines.

§ Includes five tank and inspection engines.

‖ A portion of this Company's stock was hired out to the Patna-Gaya Line.

Mineral resources of India.

91. The question of developing the mineral resources of India is one of the most important which has to be considered in connection with railways in that country. There are coal beds of considerable extent which have as yet been untouched, and to which access by railway is only required to make them available for use. The same remark is applicable to places where iron ore may be found, and where materials exist for the manufacture of iron. Some of the railway lines proposed will tap mineral districts, and it may be hoped that a field will be found for private enterprise which, while benefiting the capitalist, will confer great advantages upon the country, and promote the economical working of railways.

92. The proposed lines which will accomplish these objects are (1) the extension of the Nagpur-Chhatisgarh Railway through Chutia-Nagpur to Barakur on the East Indian Railway; (2) the branch from Bareilly to Naini Tal; (3) the extension of the Nizam's railway from Haidarabad to Warangal, and then north to Chanda and east to the Singareny coal fields; and (4) the railway in Assam.

STATEMENT showing the QUANTITIES of the principal Articles of MERCHANDISE, &c., carried, and the AMOUNT of TRAFFIC RECEIPTS therefrom, on the under-mentioned RAILWAYS during 1881.

No.	Articles.	East Indian Railway.*			Bombay, Baroda and Central India Railway.			Eastern Bengal Railway.			Great Indian Peninsula Railway.†			Madras Railway.			Oudh and Rohilkund Railway.		
		Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.
		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.	
I.	Animals, living (for sale)—																		
	1. Horses, ponies, and mules	—	1,650	32,344	—	—	—	—	494	536	—	—	—	—	807	10,432	—	15	196
	2. Cattle	—	711	6,653	—	15,093	72,591	—			—	207	1,575	—	514	1,840	—	17	107
	3. Sheep and goats	—	6,161	7,327	—	212,014	73,380	—			—	398,141	95,962	—	18,984	5,638	—	87	50
	4. Other kinds	—	—	—	—	—	—	—			—	—	—	—	850	609	—	—	—
II.	Borax	1,653	—	41,183	—	—	—	3	—	27	—	—	—	10	—	76	1,423	—	20,300
III.	Canes and rattans	330	—	7,694	—	—	—	193	—	532	—	—	—	47	—	935	9	—	65
IV.	Caoutchouc	631	—	5,813	—	—	—	88	—	1,623	—	—	—	26	—	269	—	—	—
V.	Chinese and Japanese ware	27	—	1,561	—	—	—	—	—	—	—	—	—	1	—	31	10	—	119
VI.	Coal and coke	794,844	—	49,90,670	7,896	—	63,086	68,119	—	1,17,655	33,197	—	61,892	1,870	—	8,699	1,498	—	2,743
VII.	Cotton, raw	54,819	—	17,53,756	60,605	—	9,85,385	1,747	—	15,373	112,928	—	34,15,871	15,080	—	2,22,847	7,293	—	77,476
VIII.	Cotton, manufactured—																		
	1. Twist and yarn (European)	3,391	—	1,48,118	316	—	4,736	1,188	—	12,121	4,096	—	1,51,621	2,786	—	40,451	524	—	5,022
	2. Ditto, ditto (Indian)	1,919	—	32,923	2,196	—	28,525	422	—	1,811	3,107	—	97,796	2,592	—	29,547	577	—	5,418
	3. Piece goods (European)	56,361	—	20,64,814	2,820	—	71,986	16,280	—	1,91,332	21,165	—	8,38,047	3,746	—	65,124	2,369	—	19,095
	4. Ditto, ditto (Indian)	8,198	—	1,60,584	8,755	—	2,31,413	245	—	3,800	7,406	—	2,31,872	3,006	—	45,956	3,438	—	32,753
IX.	Drugs and medicines—																		
	1. Asafœtida	225	—	4,110	—	—	—	—	—	—				9	—	152	34	—	288
	2. Other sorts, not intoxicating	2,535	—	71,084	—	—	—	250	—	3,544	198	—	7,204	847	—	13,172	697	—	5,363
	3. Intoxicating drugs (other than opium)	496	—	11,207	—	—	—	—	—	—				87	—	960	297	—	2,072
X.	Dyeing materials—																		
	1. Indigo	6,460	—	2,67,017	—	—	—	488	—	4,306	—	—	—	1,558	—	24,897	367	—	4,033
	2. Madder or munjit	40	—	647	—	—	—	—	—	—	—	—	—	—	—	—	8	—	78
	3. Safflower	614	—	6,760	—	—	—	282	—	7,071	—	—	—	—	—	—	249	—	693
	4. Turmeric	5,063	—	75,528	—	—	—	890	—	559	—	—	—	1,781	—	10,155	2,838	—	24,581
	5. Other kinds	5,414	—	1,07,185	—	—	—	556	—	3,362	—	—	—	3,526	—	20,674	373	—	3,170
XI.	Earthenware and porcelain	422	—	18,686	—	—	—	—	—	—	—	—	—	627	—	4,588	65	—	800
XII.	Fibrous products—																		
	1. Jute, raw	115	—	1,001	—	—	—	2,07,738	—	23,42,536	1,197‡	—	25,757	53	—	754	419	—	2,364
	2. Jute, manufactured (gunny bags and cloths)	28,869	—	4,93,819	4,552	—	49,430	9,466	—	81,941	15,045	—	2,84,626	4,415	—	38,202	6,745	—	31,978
	3. Other fibres, raw	1,123	—	11,804	136	—	1,133	—	—	—	—	—	—	15	—	102	556	—	3,376
	4. Ditto, ditto, manufactured	355	—	5,438	—	—	—	—	—	—	—	—	—	429	—	3,582	369	—	2,615
XIII.	Fruits and nuts—																		
	1. Cocoa-nuts	2,007	—	55,626	7,796	—	85,701	134	—	1,481	13,877	—	3,52,575	4,386	—	37,608	235	—	2,772
	2. All other kinds	17,495	—	3,63,988	12,263	—	1,29,740	310	—	3,016	54,592	—	8,45,394	11,832	—	1,10,608	2,399	—	23,087
XIV.	Grain and pulse—																		
	1. Wheat	363,856	—	39,01,177				8,600	—	1,500	5,04,708	—	76,04,989	3,190	—	24,825	127,808	—	3,24,773
	2. Grain and pulse	136,208	—	11,78,240				11,979	—	30,612				7,326	—	40,627	33,410	—	85,226
	3. Other spring crops	—	—	—	119,881	—	9,29,435	179	—	774				—	—	—	17,856	—	52,281
	4. Rice, husked	188,203	—	14,88,154				38,573	—	2,00,827	1,76,632	—	15,45,578	48,071	—	2,39,644	43,708	—	1,79,861
	5. Rice, unhusked	3,315	—	32,835				2,550	—	856				5,168	—	11,220	907	—	1,978
	6. Other rain crops	68,180	—	5,18,767				—	—	—				39,678	—	2,08,960	43,487	—	1,58,368
XV.	Gums and resins	2,101	—	45,091	—	—	—	193	—	2,231	—	—	—	272	—	3,170	186	—	1,384
XVI.	Hides and skins—																		
	1. Hides of cattle	20,280	—	3,48,444	1,963	—	35,132	4,552	—	54,147	10,699	—	3,06,225	431	—	4,571	2,783	—	14,500
	2. Skins of sheep, goats and small animals	5,010	—	1,51,178				132	—	2,259				10,358	—	1,38,088	887	—	5,880
XVII.	Horns	494	—	9,265	—	—	—	62	—	598				159	—	1,853	288	—	1,468
XVIII.	Lac—																		
	1. Dye	251	—	6,907	—	—	—	39	—	411	—	—	—	16	—	110	9	—	84
	2. Shell	5,713	—	1,43,536	—	—	—	41	—	430	—	—	—	22	—	137	1	—	8
	3. Stick and other kinds	7,453	—	75,274	—	—	—	179	—	1,612	—	—	—	58	—	518	446	—	1,598

* Includes Ghazipur-Dildarnagar State Railway.

† Includes Dhond and Manmad, Amraoti and Khamgaon State lines.

‡ Includes hemp.

STATEMENT showing the QUANTITIES of the principal Articles of MERCHANDISE, &c., carried, and the AMOUNT of TRAFFIC RECEIPTS therefrom, on the under-mentioned RAILWAYS during 1881—*cont.*

No.	Articles.	East Indian Railway.*			Bombay, Baroda and Central India Railway.			Eastern Bengal Railway.			Great Indian Peninsula Railway.†			Madras Railway.			Oudh and Rohilkund Railway.		
		Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.
		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.	
XIX.	Leather—																		
	1. Unmanufactured	534	—	28,464	—	—	—	43	—	392	—	—	—	3,302	—	44,237	73	—	476
	2. Manufactured	1,928	—	63,088	—	—	—	329	—	4,560	—	—	—	202	—	4,387	389	—	3,654
XX.	Liquors	5,935	—	2,32,984	840	—	26,810	696	—	9,946	3,160	—	85,272	4,328	—	50,815	2,414	—	26,561
XXI.	Mats	—	166	2,827	—	—	—	—	—	—	—	—	—	—	1,065	5,526	—	172	884
XXII.	Metals and manufactures of—																		
	1. Brass and copper	10,629	—	3,08,256	11,459	—	1,93,371	1,504	—	14,815	43,511	—	8,84,432	1,242	—	13,738	1,472	—	13,704
	2. Iron	49,733	—	12,86,136				7,441	—	53,066				16,947	—	1,89,104	6,024	—	45,591
	3. Other metals	6,236	—	2,23,209				372	—	2,004				431	—	5,329	1,075	—	4,787
XXIII.	Oils	4,237	—	1,12,400	3,275	—	36,225	2,174	—	20,711	12,489	—	2,58,976	7,681	—	60,436	767	—	6,698
XXIV.	Opium	9,599	—	2,41,628	659	—	44,955	18	—	275	3,230	—	2,14,781	13	—	3,452	812	—	20,443
XXV.	Paints and colours	1,728	—	38,264	—	—	—	173	—	1,757	8,647	—	1,55,893	136	—	2,019	113	—	1,081
XXVI.	Provisions—																		
	1. Ghee	10,186	—	3,42,667	2,605	—	35,512	152	—	1,343	4,403‡	—	1,51,344	1,170	—	15,965	1,311	—	10,348
	2. Other kinds	2,986	—	1,06,961	—	—	—	3,040	—	20,932	—	—	—	17,496	—	1,03,371	857	—	7,100
XXVII.	Salt	216,542	—	16,66,900	69,614	—	2,37,099	35,441	—	1,47,883	96,684	—	12,03,830	48,143	—	3,50,955	51,434	—	1,66,210
XXVIII.	Saltpetre, &c.—																		
	1. Saltpetre	20,538	—	2,80,496	—	—	—	93	—	558	—	—	—	568	—	4,205	373	—	1,444
	2. Other saline substances	14,793	—	1,24,419	—	—	—	—	—	—	—	—	—	1	—	7	—	—	—
XXIX.	Seeds—																		
	1. Oil seeds—																		
	a. Linseed	101,754	—	8,79,174				3,920	—	17,012	1,05,744	—	16,19,865	31	—	120	4,688	—	16,961
	b. Mustard and rape	94,988	—	10,19,332				10,878	—	53,455	20,882	—	3,10,885	529	—	3,012	27,198	—	69,293
	c. Til or ginjelly	40,518	—	4,60,260				240	—	742	62,161	—	8,34,779	7,501	—	48,023	3,979	—	13,632
	d. Other oil seeds	39,895	—	3,95,208	65,479	—	6,17,366	1,012	—	4,144	1,534	—	10,868	5,645	—	22,874	6,903	—	19,075
	2. Other seeds—																		
	a. Indigo seed	12,137	—	1,26,473				440	—	1,502	—	—	—	611	—	2,072	768	—	4,180
	b. Tea seed	18	—	770				153	—	1,214	—	—	—	28	—	142	7	—	79
	c. Other kinds	17,379	—	1,74,236				—	—	—	1,374	—	10,160	8,965	—	44,509	6,010	—	18,325
XXX.	Silk—																		
	1. Raw	650	—	21,242	—	—	—	293	—	3,587	488	—	26,830	29	—	969	4	—	61
	2. Manufactured	629	—	27,931	—	—	—	16	—	358	—	—	—	21	—	564	31	—	578
XXXI.	Spices	5,934	—	1,33,145	—	—	—	393	—	4,627	3,353	—	63,211	3,328	—	26,091	976	—	8,415
XXXII.	Stone and marble	28,422	—	1,37,014	13,790	—	44,964	963	—	2,610	3,479	—	10,107	3,152	—	16,014	14,556	—	27,482
XXXIII.	Sugar																		
	1. Refined	18,920	—	2,70,694	10,568	—	1,56,783	1,309	—	5,506	42,171	—	6,14,356	6,973	—	51,770	32,945	—	2,00,960
	2. Unrefined	113,699	—	9,64,751				8,003	—	29,099				14,389	—	86,305	59,892	—	2,84,777
XXXIV.	Tea—																		
	1. Indian	908	—	29,737	68	—	1,878	8,129	—	1,16,347	438§	—	16,947	247	—	4,821	304	—	2,554
	2. Foreign	348	—	17,931	362	—	9,713	—	—	—							1	—	3
XXXV.	Tobacco	21,533	—	3,06,957	12,284	—	1,16,486	8,612	—	59,040	5,892	—	92,499	8,059	—	49,045	1,301	—	8,647
XXXVI.	Wood—																		
	1. Timber	16,207	—	1,62,009	21,132	—	1,47,623	2,272	—	11,942	8,936	—	91,633	27,555	—	132,690	14,641	—	56,306
	2. Firewood	13,404	—	22,837	14,109	—	38,888	638	—	564	41,404	—	69,482	13,310	—	36,602	3,893	—	3,786
XXXVII.	Wool—																		
	1. Raw	377	—	7,986	3,346	—	82,700	11	—	175	185	—	5,164	99	—	1,655	60	—	726
	2. Manufactured (piece goods)	1,452	—	63,015	—	—	—	30	—	457	—	—	—	466	—	5,411	183	—	2,024
	3. Shawls	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
XXXVIII.	All other articles of merchandise—																		
	1. Unmanufactured	97,118	—	14,25,282	113,878	—	13,27,631	34,382	—	1,44,893	87,710	—	16,58,808	117,826	—	5,05,702	7,954	—	34,076
	2. Manufactured													6,368	—	1,04,905	253,233	—	3,42,850

* Includes Dilgarnagar-Ghazipur line. † Includes Dhond and Manmad, Amraoti and Khamgaon State lines. ‡ Includes butter. § Includes coffee.

STATEMENT showing the QUANTITIES of the principal Articles of MERCHANDISE, &c., carried, and the AMOUNT of TRAFFIC RECEIPTS therefrom, on the under-mentioned RAILWAYS during 1881—*cont.*

No.	Articles.	Sind, Punjab and Delhi Railway.			South Indian Railway.			Calcutta and South-Eastern Railway.			Cawnpore and Farrukhabad Railway.			Holkar and Sindhia-Nimach Railway.			Indus Valley and Kandahar Railway.			Muttra-Hathras Railway.		
		Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.
		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.	
I.	Animals, living (for sale)—																					
	1. Horses, ponies, and mules	—	3,705	21,802	—	109	1,243	—	—	—	—	—	—	—	—	—	—	433	1,030	—	—	—
	2. Cattle	—	990	1,460	—	218	1,118	—	—	—	—	—	—	—	—	—	—	1,150	3,314	—	—	—
	3. Sheep and goats	—	431	229	—	193	106	—	92	111	—	—	—	—	—	—	—	6,571	2,602	—	—	—
	4 Other kinds	—	165	232	—	2,402	201	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
II.	Borax	372	—	4,347	—	—	—	—	—	—	2	—	13	6	—	79	—	—	—	17	—	18
III.	Canes and rattans	811	—	5,334	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IV.	Caoutchouc	10	—	82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
V.	Chinese and Japanese ware	49	—	1,130	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
VI.	Coal and coke	70,632	—	3,78,617	—	—	—	—	—	—	2,108	—	8,209	388	—	601	—	—	—	—	—	—
VII.	Cotton, raw	7,356	—	96,769	5,071	—	27,388	—	—	—	1,361	—	8,179	4,438	—	51,781	604	—	10,688	408	—	396
VIII.	Cotton, manufactured—																					
	1. Twist and yarn (European)	1,764	—	30,628	2,324	—	25,550	—	—	—	—	—	—	121	—	1,366	—	—	—	—	—	—
	2. Ditto, ditto (Indian)	628	—	9,527	965	—	6,051	—	—	—	—	—	—	55	—	612	—	—	—	—	—	—
	3. Piece goods (European)	15,174	—	2,41,499	4,360	—	42,347	—	—	—	1,600	—	9,020	4,095	—	58,082	5,403	—	1,24,836	722	—	1,769
	4. Ditto, ditto (Indian)	3,453	—	51,912	1,234	—	7,367	—	—	—	—	—	—	1,099	—	14,626	2,482	—	57,476	—	—	—
IX.	Drugs and medicines—																					
	1. Asafœtida	212	—	4,347	—	—	—	—	—	—	—	—	—	—	—	—						
	2. Other sorts, not intoxicating	4,573	—	60,374	—	—	—	—	—	—	20	—	143	284	—	2,997	1,396	—	28,103	72	—	81
	3. Intoxicating drugs (other than opium)	263	—	4,331	—	—	—	—	—	—	—	—	—	298	—	2,438						
X.	Dyeing materials—																					
	1. Indigo	1,216	—	19,870	449	—	3,195	—	—	—	—	—	—									
	2. Madder or manjit	340	—	4,715	—	—	—	—	—	—	—	—	—									
	3. Safflower	204	—	4,531	—	—	—	—	—	—	—	—	—	478	—	4,756	2,095	—	46,669	1,085	—	971
	4. Turmeric	2,398	—	37,504	—	—	—	—	—	—	749	—	3,762									
	5. Other kinds	1,746	—	19,755	1,147	—	6,308	—	—	—	—	—	—	—	—	—	—	—	—			
XI.	Earthenware and porcelain	277	—	6,399	91	—	566	—	—	—	59	—	503	15	—	220	—	—	—	95	—	192
XII.	Fibrous products—																					
	1. Jute, raw	29	—	183	—	—	—	—	—	—	—	—	—	—	—	—	24	—	336	—	—	—
	2. Jute, manufactured (gunny bags and cloths.)	—	5,544	37,902	—	—	—	—	—	—	—	220	946	—	1,359	10,318	1,993	—	20,051	—	535	606
	3. Other fibres, raw	303	—	2,183	—	—	—	—	—	—	—	—	—	—	57	546	380	—	2,840	—	—	—
	4. Ditto, ditto, manufactured	886	—	6,797	—	—	—	—	—	—	—	—	—	—	58	701	—	—	—	—	—	—
XIII.	Fruits and nuts—																					
	1. Cocoa-nuts	—	8,452,408	31,359	2,474	—	9,082	—	—	—	—	—	—	2,676	—	27,061	—	—	—	—	—	—
	2. All other kinds	12,590	—	1,54,285	14,832	—	72,578	—	—	—	134	—	733	2,105	—	19,230	5,915	—	1,04,128	243	—	328
XIV.	Grain and pulse—																					
	1. Wheat	148,243	—	9,53,381	—	—	—	—	—	—	7,662	—	25,373	34,152	—	2,17,215	82,635	—	7,95,323	13,453	—	19,001
	2. Grain and pulse	26,389	—	1,23,292	19,079	—	78,506	—	—	—				31,985	—	1,53,395	7,263	—	49,199			
	3. Other spring crops	5,042	—	35,679	—	—	—	—	—	—	—	—	—	—	—	—	9,210	—	48,663	—	—	—
	4. Rice, husked	22,311	—	94,476	32,854	—	1,07,363	6,472	—	6,387	—	—	—	3,550	—	21,095				—	—	—
	5. Rice, unhusked	441	—	2,188	22,551	—	79,730	780	—	569	—	—	—	—	—	—	18,163	—	69,179	—	—	—
	6. Other rain crops	21,169	—	1,05,273	21,399	—	90,072	—	—	—	—	—	—	—	—	—	1,854	—	5,806	—	—	—
XV.	Gums and resins	508	—	6,125	—	—	—	—	—	—	146	—	546	—	—	—	—	—	—	440	—	368
XVI.	Hides and skins—																					
	1. Hides of cattle	3,749	—	35,152	1,535	—	9,203	—	—	—	151	—	827	203	—	1,926	913	—	12,075	147	—	331
	2. Skins of sheep, goats and small animals	2,031	—	17,779	2,504	—	15,951	—	—	—	—	—	—	235	—	2,442	322	—	3,733	—	—	—
XVII.	Horns	244	—	2,091	—	—	—	—	—	—	3	—	21	20	—	144	—	—	—	7	—	19
XVIII.	Lac—																					
	1. Dye	254	—	3,784	—	—	—	—	—	—	—	—	—									
	2. Shell	15	—	175	—	—	—	—	—	—	38	—	162	23	—	226	—	—	—	17	—	22
	3. Stick and other kinds	258	—	4,327	—	—	—	—	—	—												

STATEMENT showing the QUANTITIES of the principal Articles of MERCHANDISE, &c., carried, and the AMOUNT of TRAFFIC RECEIPTS therefrom, on the under-mentioned RAILWAYS during 1881—*cont.*

No.	Articles.	Sind, Punjab and Delhi Railway.			South Indian Railway.			Calcutta and South-Eastern Railway.			Cawnpore and Farrukhabad Railway.			Holkar and Sindhia-Nimach Railway.			Indus Valley and Kandahar Railway.			Muttra-Hathras Railway.		
		Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.
		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.	
XIX.	Leather—																					
	1. Unmanufactured	503	—	9,675	—	—	—	—	—	—	9	—	49	41	—	347	—	—	—	8	—	20
	2. Manufactured	619	—	11,072	—	—	—	—	—	—	—	—	—	49	—	707	—	—	—	—	—	—
XX.	Liquors	8,206	—	1,06,906	1,910	—	11,312	—	—	—	36	—	246	217	—	2,892	2,159	—	79,332	72	—	253
XXI.	Mats	—	136	1,343	—	418	2,967	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
XXII.	Metals and manufactures of—																					
	1. Brass and copper	2,300	—	31,894	1,140	—	6,916	—	—	—	1,136	—	5,628	662	—	6,959	704	—	19,753	489	—	715
	2. Iron	17,949	—	1,42,270	7,598	—	44,243	—	—	—	—	—	—	2,235	—	18,113	2,299	—	58,896	—	—	—
	3. Other metals	1,643	—	20,538	511	—	2,963	—	—	—	—	—	—	199	—	2,153	—	—	—	—	—	—
XXIII.	Oils	3,227	—	40,894	8,299	—	41,155	—	—	—	28	—	211	565	—	6,801	739	—	13,446	89	—	199
XXIV.	Opium	38	—	521	—	—	—	—	—	—	172	—	1,512	4,004	—	66,614	—	—	—	7	—	17
XXV.	Paints and colours	363	—	6,540	—	—	—	—	—	—	18	—	93	156	—	2,011	196	—	5,570	91	—	104
XXVI.	Provisions—																					
	1. Ghee	2,587	—	42,319	693	—	3,510	—	—	—	559	—	2,141	1,109	—	11,028	1,086	—	17,753	281	—	504
	2. Other kinds	6,763	—	56,544	8,783	—	42,516	—	—	—	—	—	—	102	—	1,016	1,268	—	33,992	—	—	—
XXVII.	Salt	37,887	—	1,69,070	18,512	—	74,396	—	—	—	502	—	1,541	5,014	—	31,208	2,943	—	17,835	348	—	220
XXVIII.	Saltpetre, &c.—																					
	1. Saltpetre	372	—	2,702	—	—	—	—	—	—	2,405	—	9,601	569	—	3,770	—	—	—	78	—	114
	2. Other saline substances	539	—	4,955	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
XXIX.	Seeds—																					
	1. Oilseeds—																					
	a. Linseed	274	—	1,726	18	—	100	—	—	—	3,095	—	9,744	4,291	—	30,224	—	—	—	1,315	—	1,215
	b. Mustard and rape	8,740	—	35,792	314	—	1,723	—	—	—				—	—	—	4,376	—	21,343			
	c. Til or ginjelly	6,732	—	31,704	5,555	—	23,065	—	—	—				—	—	—	964	—	6,580			
	d. Other oilseeds	2,601	—	17,544	4,517	—	17,506	—	—	—				2,913	—	19,107	—	—	—			
	2. Other seeds—																					
	a. Indigo seed	521	—	9,787	620	—	2,697	—	—	—	—	—	—	7,375	—	64,589	—	—	—	—	—	—
	b. Tea seed	8	—	83	—	—	—	—	—	—	—	—	—									
	c. Other kinds	7,662	—	48,755	13,960	—	52,491	—	—	—	—	—	—									
XXX.	Silk—																					
	1. Raw	258	—	3,913	—	—	—	—	—	—	1	—	11	11	—	195	33	—	1,055	—	—	—
	2. Manufactured	112	—	2,785	—	—	—	—	—	—	—	—	—									
XXXI.	Spices	4,166	—	48,217	138	—	731	—	—	—	214	—	706	858	—	9,672	1,373	—	25,767	784	—	719
XXXII.	Stone and marble	23,808	—	67,453	1,63,583	—	1,17,128	—	—	—	117	—	458	331	—	2,081	—	—	—	200	—	128
XXXIII.	Sugar—																					
	1. Refined	8,176	—	66,329	2,967	—	12,908	—	—	—	347	—	1,176	4,364	—	34,146	4,626	—	70,103	5,698	—	7,666
	2. Unrefined	62,279	—	5,57,395	15,717	—	68,973	—	—	—	—	—	—	7,783	—	65,686	11,035	—	98,074	—	—	—
XXXIV.	Tea—																					
	1. Indian	1,621	—	20,376	33	—	156	—	—	—	—	—	—									
	2. Foreign	799	—	16,932	9	—	52	—	—	—	—	—	675	13	—	132	—	—	—	2	—	15
XXXV.	Tobacco	1,663	—	22,585	3,751	—	16,581	—	—	—	126	—	—	3,218	—	32,487	779	—	11,160	74	—	67
XXXVI.	Wood—																					
	1. Timber	13,825	—	70,806	5,518	—	23,254	—	—	—	—	—	—	1,407	—	8,840	1,767	—	20,327	—	—	—
	2. Firewood	20,614	—	40,690	9,145	—	17,070	19,246	—	16,015	893	—	3,815	9,225	—	21,042	—	—	—	1,017	—	1,975
XXXVII.	Wool—																					
	1. Raw	8,561	—	1,02,320	—	—	—	—	—	—	12	—	91	29	—	260	7,143	—	1,79,695	51	—	122
	2. Manufactured (piece goods)	1,391	—	24,217	—	—	—	—	—	—	—	—	—	74	—	734	—	—	—	—	—	—
	3. Shawls	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
XXXVIII.	All other articles of merchandise—																					
	1. Unmanufactured	2,702	—	17,739	15,790	—	59,323	13,724	—	14,004	1,407	—	7,654	3,093	—	32,691	13,611	—	67,158	1,367	—	3,033
	2. Manufactured	13,363	—	2,04,399	28,096	—	1,49,544	—	—	—	—	—	—	3,242	—	32,501	13,019	—	1,89,559	—	—	—

STATEMENT showing the QUANTITIES of the principal Articles of MERCHANDISE, &c., carried, and the AMOUNT of TRAFFIC RECEIPTS therefrom, on the under-mentioned RAILWAYS during 1881—*cont.*

No.	Articles.	Nagpur and Chhatisgarh Railway.			Nalhati Railway.			Northern Bengal Railway.			Patna-Gaya Railway.			Punjab Northern Railway.			Rajputana Railway.		
		Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.
		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.	
I.	Animals, living (for sale)—																		
	1. Horses, ponies, and mules	—	—	—	—	—	—	—	—	—	—	—	—	—	2,329	8,631			
	2. Cattle	—	—	—	—	—	—	—	—	—	—	—	—	—	228	758	—	320	2,394
	3. Sheep and goats	—	—	—	—	—	—	—	—	—	—	—	—	—	64	119			
	4. Other kinds	—	—	—	—	—	—	—	—	—	—	—	—	—	45	258			
II.	Borax	—	—	—	—	—	—	—	—	—	—	—	—	14	—	194	28	—	714
III.	Canes and rattans	10	—	22	—	—	—	—	—	—	—	—	—	65	—	821	452	—	3,728
IV.	Caoutchouc	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
V.	Chinese and Japanese ware	—	—	—	—	—	—	—	—	—	—	—	—	56	—	1,843	22	—	1,006
VI.	Coal and coke	7,642	—	12,294	1,749	—	2,889	—	—	—	3,515	—	8,336	26,596	—	79,409	2,142	—	17,577
VII.	Cotton, raw	165	—	1,209	234	—	862	—	—	—	575	—	3,235	687	—	14,376	17,323	—	4,12,791
VIII.	Cotton, manufactured—																		
	1. Twist and yarn (European)	—	—	—	9	—	29	—	—	—	41	—	174	172	—	3,051			
	2. Ditto, ditto (Indian)	690	—	2,671	—	—	—	—	—	—	—	—	—	203	—	3,451	8,034	—	1,95,954
	3. Piece goods (European)				864	—	2,429	4,730	—	48,450	1,021	—	4,352	3,177	—	61,824			
	4. Ditto, ditto (Indian)				40	—	123	—	—	—	118	—	529	1,132	—	19,582			
IX.	Drugs and medicines—																		
	1. Asafœtida	—	—	—	—	—	—	—	—	—	—	—	—	79	—	1,316			
	2. Other sorts, not intoxicating	232	—	456	7	—	36	—	—	—	6	—	32	412	—	5,116	534	—	9,765
	3. Intoxicating drugs (other than opium)				12	—	44	—	—	—	10	—	42	55	—	785			
X.	Dyeing materials—																		
	1. Indigo				3	—	11	—	—	—	1	—	6	353	—	9,653			
	2. Madder or manjit				—	—	—	—	—	—	—	—	—	7	—	74			
	3. Safflower	81	—	205	3	—	12	—	—	—	49	—	203	10	—	151	3,200	—	47,583
	4. Turmeric				7	—	17	—	—	—	297	—	1,152	459	—	4,064			
	5. Other kinds				—	—	—	—	—	—	—	—	—	217	—	2,152			
XI.	Earthenware and porcelain	4	—	17	—	—	—	—	—	—	—	—	—	58	—	1,426	25	—	441
XII.	Fibrous products—																		
	1. Jute, raw				24	—	46	39,491	—	3,10,824	14	—	17	13	—	149			
	2. Jute, manufactured (gunny bags and cloths)	593	—	1,870	106	—	197	—	—	—	—	—	378	1,121	—	8,834	3,837	—	34,824
	3. Other fibres, raw				—	—	—	—	—	—	—	—	—	125	1,131	1,045			
	4. Ditto, ditto, manufactured				—	—	—	—	—	—	—	—	—	182	—	2,440			
XIII.	Fruits and nuts—																		
	1. Cocoa-nuts	850	—	2,365	—	—	—	—	—	—	—	—	—	103	—	879			
	2. All other kinds	—	—	—	107	—	280	—	—	—	74	—	326	3,652	—	32,653	6,762	—	1,26,842
XIV.	Grain and pulse—																		
	1. Wheat				320	—	392	—	—	—	2,826	—	7,719	38,590	—	3,50,742			
	2. Grain and pulse				795	—	1,323	6,146	—	25,466	3,947	—	5,113	12,448	—	1,09,855			
	3. Other spring crops				—	—	—	—	—	—	—	—	—	6,434	—	51,541			
	4. Rice, husked	38,125	—	78,904	171	—	256	29,631	—	99,972	207	—	317	4,577	—	49,609	90,614	—	6,68,251
	5. Rice, unhusked				1,157	—	1,074	—	—	—	3,186	—	5,730	56	—	357			
	6. Other grain crops				—	—	—	—	—	—	—	—	—	7,795	—	65,845			
XV.	Gums and resins	49	—	136	—	—	—	—	—	—	—	—	—	17	—	272	455	—	7,047
XVI.	Hides and skins—																		
	1. Hides of cattle	—	—	—	71	—	174	—	—	—	519	—	1,567	1,014	—	14,906			
	2. Skins of sheep, goats and small animals	696	—	1,933	—	—	—	—	—	—	17	—	69	291	—	2,201	1,507	—	30,073
XVII.	Horns	36	—	101	—	—	—	—	—	—	—	—	—	137	—	794	42	—	1,509
XVIII.	Lac—																		
	1. Dye													14	—	209			
	2. Shell	34	—	171	6	—	10	—	—	—	1,204	—	3,861	5	—	69	91	—	1,233
	3. Stick and other kinds													3	—	29			

STATEMENT showing the QUANTITIES of the principal Articles of MERCHANDISE, &c., carried, and the AMOUNT of TRAFFIC RECEIPTS therefrom, on the under-mentioned RAILWAYS during 1881—*cont.*

No.	Articles.	Nagpur and Chhatisgarh Railway.			Nalhati Railway.			Northern Bengal Railway.			Patna-Gaya Railway.			Punjab Northern Railway.			Rajputana Railway.		
		Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.
		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.	
XIX.	Leather—																		
	1. Unmanufactured	129	—	261	—	—	—	—	—	—	—	—	—	308	—	2,631	252	—	3,342
	2. Manufactured													188	—	2,520			
XX.	Liquors	74	—	227	38	—	156	—	—	—	30	—	163	2,291	—	30,767	828	—	21,164
XXI.	Mats	2	—	14	—	—	—	—	—	—	—	—	—	46	—	475	18	—	268
XXII.	Metals and manufactures of—																		
	1. Brass and copper	567	—	1,315	138	—	424	—	—	—	103	—	462	412	—	4,204	8,081	—	1,43,661
	2. Iron				50	—	130	—	—	—	1,055	—	3,433	3,135	—	32,035			
	3. Other metals				—	—	—	—	—	—	13	—	49	149	—	2,004			
XXIII.	Oils	31	—	86	43	—	119	—	—	—	72	—	282	1,363	—	19,117	735	—	13,150
XXIV.	Opium	—	—	—	4	—	18	—	—	—	601	—	4,240	—	—	—	140	—	4,549
XXV.	Paints and colour	29	—	58	5	—	12	—	—	—	79	—	311	83	—	1,415	58	—	1,809
XXVI.	Provisions—																		
	1. Ghee	402	—	743	17	—	47	—	—	—	158	—	630	464	—	5,472	2,089	—	30,794
	2. Other kinds				255	—	480	—	—	—	458	—	1,199	478	—	8,498			
XXVII.	Salt	4,384	—	9,115	280	—	333	14,440	—	52,510	6,322	—	16,074	32,936	—	1,67,151	159,221	—	13,63,937
XXVIII.	Saltpetre, &c.—																		
	1. Saltpetre	—	—	—	—	—	—	—	—	—	177	—	313	61	—	422	121	—	1,939
	2. Other saline substances	—	—	—	—	—	—	—	—	—	—	—	—	63	—	564			
XXIX.	Seeds—																		
	1. Oil seeds—																		
	a. Linseed				33	—	39	—	—	—	5,921	—	15,037	62	—	691			
	b. Mustard and rape				542	—	827	—	—	—	897	—	2,426	1,490	—	6,565			
	c. Til or ginjelly				—	—	—	—	—	—	618	—	1,643	340	—	2,624			
	d. Other oil seeds	6,832	—	13,516	—	—	—	—	—	—	—	—	—	755	—	4,297	34,082	—	1,69,291
	2. Other seeds—																		
	a. Indigo seed				447	—	757	—	—	—	—	—	—	22	—	154			
	b. Tea seed				—	—	—	—	—	—	—	—	—	—	—	—			
	c. Other kinds				322	—	534	—	—	—	1,741	—	4,413	244	—	1,876			
XXX.	Silk—																		
	1. Raw	22	—	156	253	—	923	—	—	—	—	—	—	91	—	2,793	18	—	692
	2. Manufactured				111	—	545	—	—	—	—	—	—	17	—	308			
XXXI.	Spices	26	—	81	126	—	290	—	—	—	830	—	2,845	547	—	6,711	621	—	17,169
XXXII.	Stone and marble	3	—	15	93	—	207	—	—	—	582	—	1,384	1,426	—	5,007	4,011	—	23,737
XXXIII.	Sugar—																		
	1. Refined	366	—	792	352	—	606	—	—	—	8,759	—	20,869	1,047	—	12,855	55,417	—	6,46,567
	2. Unrefined													12,299	—	1,11,653			
XXXIV.	Tea—																		
	1. Indian	—	—	—	—	—	—	4,668	—	1,13,349	—	—	—	565	—	10,159			
	2. Foreign	—	—	—	—	—	—	—	—	—	—	—	—	644	—	10,670	379	—	19,075
XXXV.	Tobacco	111	—	355	77	—	152	8,618	—	75,734	1,551	—	6,063	264	—	4,144	3,182	—	58,575
XXXVI.	Wood—																		
	1. Timber	1,149	—	4,627	55	—	99	—	—	—	341	—	841	8,876	—	54,299	10,351	—	68,566
	2. Firewood				—	—	—	—	—	—	99	—	190	9,309	—	26,885			
XXXVII.	Wool—																		
	1. Raw													283	—	2,623			
	2. Manufactured (piece goods)	10	—	35	—	—	—	—	—	—	—	—	—	212	—	2,771	2,645	—	68,982
	3. Shawls													—	—	—	—	—	—
XXXVIII.	All other articles of merchandize—																		
	1. Unmanufactured	2,071	—	8,385	1,400	—	2,487	44,904	—	3,02,212	19,286	—	32,665	13,713	—	1,82,290	10,774	—	1,39,911
	2. Manufactured	—	—	—				—	—	—	—	—	—	10,585	—	95,000			

STATEMENT showing the QUANTITIES of the principal Articles of MERCHANDISE, &c., carried, and the AMOUNT of TRAFFIC RECEIPTS therefrom, on the under-mentioned RAILWAYS during 1881—*cont.*

No.	Articles.	Rangoon and Irawadi Valley Railway.			Sindhia Railway.			Tirhut Railway.			Wardha Coal Railway.			Mysore Railway.			Nizam's Railway.		
		Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.
		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.	
I.	Animals, living (for sale)—																		
	1. Horses, ponies and mules	—	310	1,674	—	10	13	—	—	—	—	—	—	—	—	—	—	102	333
	2. Cattle	—	4,118	12,183	—	—	—	—	—	—	—	—	—	19	—	44	—	35	217
	3. Sheep and goats	—	705	721	—	—	—	—	—	—	—	—	—	—	—	—	—	13,005	2,815
	4. Other kinds	—	709	538	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
II.	Borax	—	—	—	1	—	3	—	—	—	—	—	—	—	—	—	—	—	—
III.	Canes and rattans	22	—	171	91	—	419	—	—	—	50	—	98	—	—	—	—	—	—
IV.	Caoutchouc	—	—	—	8	—	32	—	—	—	—	—	—	—	—	—	—	—	—
V.	Chinese and Japanese ware	150	—	1,115	1	—	4	—	—	—	—	—	—	—	—	—	—	—	—
VI.	Coal and coke	444	—	702	1,489	—	2,319	9,670	—	21,426	49,923	—	73,762	—	—	—	140	—	487
VII.	Cotton, raw	14	—	224	142	—	599	509	—	3,211	1,787	—	5,533	—	—	—	185	—	1,136
VIII.	Cotton, manufactured—																		
	1. Twist and yarn (European)	233	—	2,100	11	—	50	83	—	386	—	—	—	—	—	—	2,340	—	34,629
	2. Ditto, ditto (Indian)	262	—	2,576	2	—	14				276	—	1,487	—	—	—			
	3. Piece goods (European)	113	—	1,200	70	—	269	3,551	—	13,877									
	4. Ditto, ditto (Indian)	238	—	2,916	508	—	2,742	685	—	3,375	—	—	—	123	—	517			
IX.	Drugs and medicines—																		
	1. Asafœtida	—	—	—	4	—	22	—	—	—									
	2. Other sorts, not intoxicating	142	—	1,874	22	—	146	26	—	154	76	—	272	15	—	36	370	—	4,017
	3. Intoxicating drugs (other than opium)	—	—	—	15	—	75	15	—	113									
X.	Dyeing materials—																		
	1. Indigo	—	—	—	5	—	29	1,926	—	9,778	—	—	—	11	—	29			
	2. Madder or manjit	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	3. Safflower	—	—	—	10	—	47	1	—	2	40	—	103	—	—	—	225	—	1,293
	4. Turmeric	—	—	—	94	—	432	115	—	258	—	—	—	—	—	—			
	5. Other kinds	6,183	—	38,942	26	—	100	—	—	—	—	—	—	—	—	—			
XI.	Earthenware and porcelain	563	—	2,277	2	—	8	—	—	—	2	—	9	—	—	—	186	—	3,007
XII.	Fibrous products—																		
	1. Jute, raw	—	—	—	—	—	—	50	—	223	—	—	—	—	—	—	33	—	269
	2. Jute, manufactured (gunny bags and cloths)	—	1,282	10,711	256	—	486	—	625	2,007	232	—	676	20	—	71	922	—	8,750
	3. Other fibres, raw	—	—	—	37	—	188	—	—	—									
	4. Ditto, ditto, manufactured	24	—	294	36	—	155	—	—	—									
XIII.	Fruits and nuts—																		
	1. Cocoa nuts	315	—	2,088	4	—	17	—	—	—	293	—	1,080	3	1,620	12	177	—	1,613
	2. All other kinds	2,910	—	29,155	465	—	1,951	334	—	1,249						15	1,777	—	16,932
XIV.	Grain and pulse—																		
	1. Wheat	3	—	28	3,539	—	5,272	1,967	—	4,704	—	—	—	—	—	—			
	2. Grain and pulse	537	—	3,722	1,302	—	2,579	4,814	—	8,414	—	—	—	—	—	—			
	3. Other spring crops	5	—	39	—	—	—	—	—	—	11,419	—	10,975	—	—	—			
	4. Rice, husked	10,520	—	61,907	1,132	—	3,145	93	—	170	—	—	—	176	—	570	22,523	—	116,412
	5. Rice, unhusked	73,869	—	3,44,842	—	—	—	5,745	—	11,459	—	—	—	—	—	—			
	6. Other rain crops	—	—	—	1,146	—	1,816	—	—	—	—	—	—	—	—	—			
XV.	Gums and resins	28	—	264	39	—	195	—	—	—	30	—	97	—	—	—	90	—	810
XVI.	Hides and skins—																		
	1. Hides of cattle	109	—	1,227	54	—	204	1,578	—	5,764	52	—	215	42	—	101	920	—	7,681
	2. Skins of sheep, goats and small animals	—	—	—	126	—	638	111	—	415									
XVII.	Horns	9	—	107	—	—	—	—	—	—	6	—	24	—	—	—	—	—	—
XVIII.	Lac—																		
	1. Dye	—	—	—	—	—	—												
	2. Shell	—	—	—	1	—	2	223	—	600	2	—	10	—	—	—	—	—	—
	3. Stick and other kinds	7	—	73	3	—	20												

STATEMENT showing the QUANTITIES of the principal Articles of MERCHANDISE, &c., carried, and the AMOUNT of TRAFFIC RECEIPTS therefrom, on the under-mentioned RAILWAYS during 1881—*cont.*

No.	Articles.	Rangoon and Irawadi Valley Railway.			Sindhia Railway.			Tirhut Railway.			Wardha Coal Railway.			Mysore Railway.			Nizam's Railway.		
		Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.	Quantity.		Rupees.
		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.		Tons.	No.	
XIX.	Leather—																		
	1. Unmanufactured	9	—	137	16	—	56	—	—	—	1	—	3	—	—	—	—	—	—
	2. Manufactured	16	—	223	29	—	169	—	—	—									
XX.	Liquors	564	—	7,058	922	—	3,411	272	—	1,678	12	—	55	8	—	39	—	—	—
XXI.	Mats	72	—	654	6	—	32	—	—	—	1	—	4	—	—	—	—	—	—
XXII.	Metals and manufactures of—																		
	1. Brass and copper	45	—	587	72	—	407	323	—	1,394	350	—	917	36	—	132	1,709	—	13,568
	2. Iron	998	—	7,052	1,536	—	3,567	1,849	—	8,223									
	3. Other metals	115	—	864	10	—	51	22	—	194									
XXIII.	Oils	1,210	—	12,423	139	—	328	262	—	1,625	79	—	313	8	—	46	696	—	6,384
XXIV.	Opium	4	—	60	14	—	71	—	—	—	—	—	—	—	—	—	—	—	—
XXV.	Paints and colours	16	—	152	81	—	104	248	—	1,047	5	—	16	—	—	—	—	—	—
XXVI.	Provisions—																		
	1. Ghee	19	—	323	65	—	185	306	—	1,411	79	—	267	—	—	—	353	—	4,886
	2. Other kinds	2,187	—	21,331	100	—	318	465	—	1,593									
XXVII.	Salt	656	—	4,112	26,821	—	20,430	14,165	—	25,062	4,346	—	10,347	75	—	106	15,631	—	63,287
XXVIII.	Saltpetre, &c.—																		
	1. Saltpetre	—	—	—	1	—	5	3,164	—	7,421	—	—	—	—	—	—	—	—	—
	2. Other saline substances	—	—	—	5	—	17	—	—	—	—	—	—	—	—	—	—	—	—
XXIX.	Seeds—																		
	1. Oilseeds—																		
	a. Linseed	—	—	—	2	—	7	8,524	—	14,222	—	—	—	—	—	—	10,362	—	46,763
	b. Mustard and rape	—	—	—	4	—	13	1,066	—	2,222									
	c. Til or gingelly	1,412	—	12,808	42	—	110	16	—	57									
	d. Other oilseeds	7	—	70	32	—	56	—	—	—	7,886	—	9,694	20	—	55			
	2. Other seeds—																		
	a. Indigo seed	—	—	—	—	—	—	2,188	—	4,587									
	b. Tea seed	—	—	—	—	—	—	—	—	—									
	c. Other kinds	19	—	212	245	—	560	1,041	—	2,594									
XXX.	Silk—																		
	1. Raw	29	—	401	2	—	9	—	—	—	3	—	27	3	—	11	—	—	—
	2. Manufactured	20	—	339	1	—	10	—	—	—									
XXXI.	Spices	534	—	4,087	83	—	380	1,181	—	4,109	4	—	17	19	—	90	1,036	—	5,923
XXXII.	Stone and marble	30,510	—	43,874	80,869	—	20,753	462	—	1,705	392	—	547	—	—	—	1,138	—	5,785
XXXIII.	Sugar—																		
	1. Refined	202	—	2,270	136	—	342	524	—	2,327	168	—	421	6	—	26	1,304	—	9,432
	2. Unrefined	764	—	4,779	2,024	—	5,426												
XXXIV.	Tea—																		
	1. Indian	30	—	241	4	—	18	—	—	—	—	—	—	—	—	—	—	—	—
	2. Foreign	5	—	71	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
XXXV.	Tobacco	553	—	5,680	130	—	620	8,117	—	16,113	4	—	17	11	—	40	304	—	3,043
XXXVI.	Wood—																		
	1. Timber	5,505	—	14,779	657	—	1,417	2,455	—	5,237	826	—	2,022	254	—	220	6,464	—	21,211
	2. Firewood	213	—	994	—	—	—	1,639	—	1,082									
XXXVII.	Wool—																		
	1. Raw	—	—	—	9	—	38	—	—	—	—	—	—	6	—	30			
	2. Manufactured (piece goods)	31	—	445	29	—	138	—	—	—	—	—	—	11	—	50	105	—	1,129
	3. Shawls	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
XXXVIII.	All other articles of merchandise—																		
	1. Unmanufactured	25	—	197	2,972	—	7,984	24,234	—	47,698	3,005	—	6,984	12,515	—	31,606	112	—	746
	2. Manufactured	30,981	—	42,921													14,894	—	58,993

STATEMENTS relating to the PASSENGER and GOODS TRAFFIC and the GROSS

TABLE No. 1.—STATEMENT of TRAFFIC on the INDIAN

Railway.	Actual Number of Miles open at end of, and Average Number of Miles of Open Line in use during 1881.						Number of Miles of Sidings on 31st December 1881.	Passenger Traffic.						
	Double.		Single.		Total.			Number of Passengers (*exclusive of* Holders of Season and Periodical Tickets).						Number of Holders of Season and Periodical Tickets.
	Actual.	Average.	Actual.	Average.	Actual.	Average.		By First Class.	By Second Class.	By Intermediate Class.	By Third Class.	By Fourth or Coolie Class.	Total by all the Classes.	
East Indian (*a*)	410¼	410¼	(*a*) 1,106	1,106	(*a*) 1,516½	1,516½	334½	42,299	152,060	603,986	7,600,887	—	8,399,232	14,838
GUARANTEED.														
Bombay, Baroda and Central India	23	23	(*g*) 421	421	(*g*) 444	444	80	34,953	265,984	—	Mail. 414,803 Ordinary. 6,401,754	—	7,117,494	10,740
Eastern Bengal	—	—	(*l*) 171¾	172	(*l*) 171¾	172	43½	26,702½	57,474	—	350,508½	1,763,959	2,198,649	4,273
Great Indian Peninsula (*b*)	324½	324½	(*b*) 1,122½	1,120½	(*b*) 1,447	1,445	(*k*) 221¾	32,460	152,946	—	472,470	4,738,874	5,396,750	1,212
Madras	42½	42½	815½	815½	858	858	96	12,668½	47,622½	—	4,209,313½	—	4,269,604½	38
Oudh and Rohilkund	—	—	546¾	546¾	546¾	546¾	80¾	Upper 22,162	—	—	Lower 2,690,710½	—	2,712,872½	—
Sind, Punjab and Delhi	4½	4½	659	659	663½	663½	128½	23,058½	65,819½	5,545½	4,007,730½	—	4,102,154	—
South Indian	—	—	653½	653½	653½	653½	61	7,600½	37,330½	—	4,283,390½	—	4,328,321½	126
Totals and averages: East Indian and Guaranteed Railways	804¾	804¾	5,495¾	5,494	6,300½	6,298¾	1,046	201,909	779,236½	609,531½	30,431,567½	6,502,833	38,525,077½	31,227
STATE.														
Calcutta and South-Eastern	—	—	28	28	28	28	6¾	514	5,099½	—	481,703½	168,011	655,328	—
Cawnpore and Farrukhabad	—	—	86	83	86	83	9½	350	2,316	—	—	508,436	511,102	—
Dhond and Manmad	—	—	—	—	—	—	—	—	—	—	Worked by the Great Indian			
Holkar and Sindhia-Nimach	—	—	288¼	282½	288½	282½	28	3,991	12,408	—	26,831	1,262,010	1,305,240	33
Indus Valley and Kandahar	—	—	653	653	653	653	54	3,610	13,951	—	1,542,409	—	1,559,970	—
Muttra-Hathras	—	—	29	29	29	29	3¾	905½	—	1,596	—	323,821½	326,323	—
Nagpur and Chhatisgarh	—	—	98	61¾	98	61¾	10	2,240	15,532	—	—	444,964	462,736	8
Nalhati	—	—	27½	27½	27½	27½	1½	808	3,233	—	112,334	—	116,375	—
Northern Bengal	—	—	(*m*) 232½	231¾	(*m*) 232½	231¾	26¾	3,804	6,749	18,555	657,135	—	686,243	—
Patna-Gaya	—	—	57	57	57	57	5¾	1,492	2,642	—	542,435	—	546,569	—
Punjab Northern	—	—	354¾	340¾	354¾	340¾	39½	6,173	18,782	—	783,122	1,120,102	1,928,179	—
Rajputana	2½	2½	825½	724½	827½	726½	127	11,772	32,479	—	146,702	2,766,356	2,957,309	—
Rangoon and Irawadi Valley	—	—	161	161	161	161	31¾	3,379½	14,957½	—	1,342,916	—	1,361,253	—
Sindhia	—	—	74¾	74¾	74¾	74¾	7¾	1,522	4,215½	1,033½	169,085½	—	175,856½	—
Tirhut	—	—	85	80½	85	80½	13½	3,265	3,440	—	460,839	—	467,544	—
Wardha Coal	—	—	46½	45	46½	45	7	518	739½	—	2,480½	113,050½	116,788½	—
Totals and averages: State Railways	2½	2½	3,046½	2,879½	3,048½	2,881¾	371¼	44,344	136,544	21,184½	6,267,992½	6,706,751	13,176,816	41
NATIVE STATES (*o*).														
Amraoti	—	—	—	—	—	—	—	—	—	—	Worked by the Great Indian			
Khamgaon														
Mysore	—	—	58	58	58	58	63	1,852½	752½	—	160,473½	—	163,078½	—
Nizam's	—	—	121	117	121	117	9½	2,592½	11,896	—	360,393½	—	374,882	—
Totals and averages: Native State Railways	—	—	179	175	179	175	72½	4,445	12,648½	—	520,867	—	537,960½	—
Indus Steam Flotilla	—	—	—	—	—	—	—	—	—	—	11	—	11	—
Totals and averages: All Railways and Indus Steam Flotilla	807	807	8,721	8,548½	9,528	9,355½	1,490½	250,698	928,429	630,716	37,220,438	13,209,584	52,239,865	31,268

(*a*) Includes Dildarnagar-Ghazipur State Railway.
(*b*) Includes Dh md and Manmad, Amraoti, and Khamgaon State lines.
(*g*) Includes the Patri Branch (State line), 22¾ miles in length.
(*k*) Includes Mopani Branch line (12¾ miles).
(*o*) No returns received for Bhaunagar-Gondal Native State Railway.
(*l*) Includes the Parodaha Branch (13 miles) of the Northern Bengal State Railway.
(*m*) Excludes the Poradaha Branch (13 miles) worked by Eastern Bengal Railway; also the mileage of the Khaunia-Dhurla Tramway (21 miles).

RECEIPTS and EXPENSES for the Year ended 31st December 1881.

RAILWAYS during the Year ended 31st December 1881.

Goods Traffic.											
	Number of Tons of Minerals.			Number of Tons of General Merchandise.							
Number of Live Stock.	Number of Tons of Coal and Coke.	Number of Tons of all other Minerals.	Total Number of Tons of Minerals.	Of First or Lowest Class.	Of Second Class.	Of Third Class.	Of Fourth Class.	Of Fifth or Highest Class.	Special and Sundry.	Total of all Classes.	Railway.
8,522	947,831	—	947,831	1,632,244	202,593	53,572	21,703	5,995	963,158	2,879,265	East Indian.
											GUARANTEED.
227,108	7,896 / 56,786 (h)	(i) 74,581	139,263	—	Details omitted in Returns from India.				—	597,906	Bombay, Baroda and Central India.
494	68,118	—	68,118	—	Ditto	ditto		ditto.	—	442,693	Eastern Bengal.
398,348	161,064	—	161,064	—	Ditto	ditto		ditto.	—	1,752,251	Great Indian Peninsula.
21,683	442	—	442	—	Ditto	ditto		ditto.	—	693,171	Madras.
119	29,708	—	29,708	Low 84,144	—	Middle 39,811	—	High 3,519	654,194	811,376	Oudh and Rohilkund
5,291	42,609	—	42,609	(c) and (d) 637,756	—	(e) 23,595	(f) 341,369	—	—	1,002,720	Sind, Punjab and Delhi.
2,922	10,129	—	10,129	—	Details omitted in Returns from India.				—	917,603	South Indian.
664,487	1,324,583	74,581	1,399,164	—	Totals omitted, as Columns are incomplete.				—	9,096,985	Totals and averages: East Indian and Guaranteed Railways.
											STATE.
92	1,943	—	1,943	(c) 37,190	—	—	(f) 1,089	—	—	38,279	Calcutta and South-Eastern.
—	2,595	—	2,595	1,524	4,456	4,415	218	27	22,624	33,264	Cawnpore and Farrukhabad.
Peninsula Railway Company.			—	—	—	—	—	—	—	—	Dhond and Manmad.
22	388	—	388	—	—	152,193	—	—	34,498	186,691	Holkar and Sindhia-Nimach.
17,305	13,622	—	13,622	—	Details omitted in Returns from India.				—	552,990	Indus Valley and Kandahar.
—	265	—	265	1,218	17,136	10,909	—	—	79	29,342	Muttra-Hathras.
12	7,643	—	7,643	—	Details omitted in Returns from India.				—	165,708	Nagpur and Chhatisgarh.
—	1,749	—	1,749	(c) 8,197	—	—	(f) 380	—	—	8,577	Nalhati.
—	12,058	—	12,058	(c) 135,015	(d) 215	(e) 3,145	(f) 2,285	—	—	140,660	Northern Bengal.
—	3,515	—	3,515	(c) 49,160	—	(e) 13,763	(f) 1,260	—	—	64,183	Patna-Gaya.
3,166	26,218	—	26,218	—	Details omitted in Returns from India.				—	240,516	Punjab Northern.
320	42,976	—	42,976	—	Ditto	ditto		ditto.	—	543,424	Rajputana.
5,841	444	—	444	(c) 148,058	(d) 6	(e) 9,217	(f) 17,032	—	—	174,313	Rangoon and Irawadi Valley.
10	1,768	—	1,768	121,128	3,022	1,279	329	151	6,385	132,294	Sindhia.
—	9,670	—	9,670	(c) 80,985	(d) 3	(e) 11,184	(f) 2,802	—	—	94,794	Tirhut.
—	49,923	—	49,923	—	Details omitted in Returns from India.				—	32,950	Wardha Coal.
27,268	174,777	—	174,777	Totals omitted, as Columns are incomplete, and the classification variable.						2,438,165	Totals and averages: State Railways.
											NATIVE STATES.
Peninsula Railway Company.			—	—	—	—	—	—	—	—	Amraoti. / Khamgaon.
19	—	—	—	Details omitted in Returns from India.					—	13,368	Mysore.
13,142	140	—	140	—	Ditto	ditto		ditto.	12,071	83,854	Nizam's.
13,161	140	—	140	—	Totals omitted, as Columns are incomplete.				—	97,222	Totals and averages: Native State Railways.
—	—	—	—	—	—	—	—	—	—	4,629	Indus Steam Flotilla.
704,916	1,499,500	74,581	1,574,081	Totals omitted, as Columns are incomplete, and the classification variable.						11,637,001	Totals and averages: All Railways and Indus Steam Flotilla.

(c) General merchandise.
(d) Military stores.
(e) Materials for construction.
(f) Revenue stores.
(h) On Company's account.
(i) Company's own material.

TABLE No. 2.—STATEMENT of TRAFFIC on the INDIAN RAILWAYS

Railway.	Number of Engines and Vehicles used in conveying Traffic.												
		Carriages.								Average Number of Vehicles in each Train.			
	Engines.	First Class.	Second Class.	Intermediate Class.	Third Class.	Fourth Class.	Composite.	Total Number.	Goods Trucks, Horse Boxes, Brake Vans, &c.	Carriages in each Passenger Train.	Trucks in each Goods Train.	In each Mixed Passenger and Goods Train. Carriages.	In each Mixed Passenger and Goods Train. Trucks.
East Indian (*f*)	535	92	99	53	506	—	17	767	7,629	16·06	32·25	15·78	7·42
GUARANTEED.													
Bombay, Baroda and Central India	74	15	21	—	202	—	16	254	2,381	9·9	41·5	11·5	15·5
Eastern Bengal	40	15	3	—	45	50	19	132	834	13·04	35·16	10·81	11·61
Great Indian Peninsula (*g*)	438	83	150	—	258	220	93	804	8,436	15	27	10	10
Madras	103	30	56	—	213	—	18	317	2,284	11	22	6	17
Oudh and Rohilkund	(*b*) 120	Upper 36	Officers 4	—	Lower 206	—	2	248	3,170	(*d*) 24·06	(*d*) 28·88	(*d*)	(*d*)
Sind, Punjab and Delhi	117	35	26	24	271	—	19	375	3,387	18·60	27·82	17·43	9·95
South Indian	112	27	27	—	294	—	15	363	1,617	8·75	15·59	9·62	11·0
Totals and averages: East Indian and Guaranteed Railways	1,539	333	386	77	1,995	270	199	3,260	29,738	14·55	28·52	11·59	11·78
STATE.													
Calcutta and South-Eastern	5	Saloon 1	—	—	20	25	5	51	190	17·77	19·88	9·11	15·60
Cawnpore and Farrukhabad	11	10	4	—	72	—	—	86	231	—	27·90	14·98	7·35
Dhond and Manmad	—	—	—	—	—	—	—	—	—	Worked by the Great Indian			
Holkar and Sindhia-Nimach (*e*)	44	17	10	—	11	93	7	138	875	13·51	18·87	15·02	6·35
Indus Valley and Kandahar	101	24	26	—	184	—	5	239	2,706	23·57	24·19	9·54	14·81
Muttra-Hathras	5	4	—	4	24	—	—	32	75	15	7·93	9·45	5·65
Nagpur and Chhatisgarh	12	3	5	—	—	25	4	37	364	19·85	20·59	9·27	10·61
Nalhati	4	2	1	—	6	—	—	9	25	5	8	7	4
Northern Bengal	36	23	6	10	53	—	9	101	829	13·0	29·67	9·20	11·51
Patna-Gaya	14	5	4	—	40	—	—	49	81	21	22	13	7
Punjab Northern	119	16	9	—	96	—	11	132	1,561	14·22	18·73	12·15	4·35
Rajputana	152	56	47	24	271	—	15	413	3,114	12	23	16	6
Rangoon and Irawadi Valley	31	7	14	—	113	—	12	146	636	19·43	29·65	12·18	12·36
Sindhia	5	(Worked by Stock of East Indian Railway.)							—	—	—	20·75	12·23	10·68
Tirhut	14	11	3	—	28	—	1	43	328	9	23	10	8
Wardha Coal	5	—	—	—	3	4	2	9	154	—	12·23	4·82	10·72
Totals and averages: State Railways	558	179	129	38	921	147	71	1,485	11,169	15·69	20·42	10·93	9·03
NATIVE STATES (*h*).													
Amraoti	—	—	—	—	—	—	—	—	—	Worked by the Great Indian			
Khamgaon													
Mysore	7	9	2	—	21	—	—	32	77	11	10	—	—
Nizam's	9	4	5	—	32	—	5	46	105	18·97	15·06	12·0	6·46
Totals and averages: Native State Railways	16	13	7	—	53	—	5	78	182	14·98	32·53	12·0	6·46
Totals and averages for all Railways	2,113	525	522	115	2,969	417	275	4,823	41,089	15·21	22·38	11·17	9·75

(*b*) Excludes tank and inspection engines.
(*d*) Trains on this line are virtually all *mixed*; the average composition of a "Coaching" or a "Goods" train is shown above.
(*e*) 35 miles of this line were not opened till 10th March 1881.
(*f*) Includes Dildarnagar-Ghazipur State line.
(*g*) Includes Dhond and Manmad, Amraoti and Khamgaon State lines.
(*h*) No returns received for Bhaunagar-Gondal Native State Railway.

during the Year ended 31st December 1881.

Number of Miles travelled by Trains (except in shunting, piloting, and assisting).								Railway.
By Passenger (including Special and Troop) Trains.	By Goods (including Construction Materials for other Railways) Trains.	By Mineral Trains.	By Mixed Trains.		By Trains conveying Materials for Revenue Purposes.	Total Number of Train Miles.	Number of Train Miles per open Mile.	
			Passenger.	Goods.				
1,414,400	4,181,133	273,777	1,178,080	945,721	356,869	8,349,980	5,497·9	East Indian.
								GUARANTEED.
657,409	702,019	—	122,013	163,508	21,877	1,666,826	3,754	Bombay, Baroda and Central India.
251,626	279,562	—	54,974	151,624	5,994	743,780	4,316	Eastern Bengal.
1,873,732	(a) 5,050,183	—	405,089	513,951	Included with Goods Trains.	7,842,955	5,429	Great Indian Peninsula.
667,270	168,133	—	258,530	772,313	—	1,866,246	2,175	Madras.
11,469	458,488	—	446,640	363,459	44,569	1,324,625	2,422	Oudh and Rohilkund.
679,180	1,212,873	—	540,729	215,496	143,915	2,792,193	4,211	Sind, Punjab and Delhi.
8,867	139,140	—	461,819	558,107	93,574	(c) 1,261,507	1,994·6	South Indian.
5,563,953	12,191,531	273,777	3,467,874	3,684,179	666,798	25,848,112	4,103	Totals and averages: East Indian and Guaranteed Railways.
								STATE.
15,984	2,692	—	8,098	13,870	206	40,850	1,458·9	Calcutta and South-Eastern.
—	7,339	—	88,192	35,647	1,742	132,920	1,598·5	Cawnpore and Farrukhabad.
Peninsula Railway Company.		—	—	—	—	—	—	Dhond and Manmad.
64,446	233,104	—	268,573	71,620	17,880	655,623	2,268·5	Holkar and Sindhia-Nimach.
29,884	774,904	—	439,688	544,067	—	1,788,543	2,711·2	Indus Valley and Kandahar.
29	359	—	26,654	16,574	—	43,616	1,504	Muttra-Hathras.
108	22,598	—	30,758	29,135	11,432	94,061	1,523	Nagpur and Chhatisgarh.
60	1,596	—	23,192	13,377	—	38,225	1,402	Nalhati.
74,050	174,535	—	120,434	143,640	9,264	521,923	2,240	Northern Bengal.
2,085	2,858	—	55,361	28,944	28,687	117,935	2,062	Patna-Gaya.
86,083	505,680	—	412,910	107,753	36,377	1,148,803	3,371·3	Punjab Northern.
520,958	1,360,903	—	569,166	227,567	217,190	2,895,784	3,985	Rajputana.
120,533	96,925	—	89,378	94,423	46,025	447,284	2,778·1	Rangoon and Irawadi Valley.
1,217	2,842	—	22,743	21,931	17,933	66,666	891·8	Sindhia.
1,157	34,726	—	64,157	56,458	5,268	161,766	2,011	Tirhut.
—	3,752	—	26,826	38,981	4,792	74,351	1,652	Wardha Coal.
916,594	3,224,813	—	2,246,130	1,444,037	396,796	8,228,370	2,699	Totals and averages: State Railways.
								NATIVE STATES.
Peninsula Railway Company.		—	—	—	—	—	—	Amraoti. Khamgaon.
34,806	39,017	—	—	—	—	73,823	1,273	Mysore.
3,204	62,105	—	112,915	65,787	8,889	252,900	2,090	Nizam's.
38,010	101,122	—	112,915	65,787	8,889	326,723	1,825	Totals and averages: Native State Railways.
6,518,557	15,517,466	273,777	5,826,919	5,194,003	1,072,483	34,403,205	3,610	Totals and averages for all Railways.

(a) Includes Revenue stores.

(c) Includes 11,730 train miles run over the Pondicherry Railway.

TABLE No. 2.—STATEMENT of TRAFFIC on the INDIAN RAILWAYS

Railway.	Passenger Traffic. Number of Passenger Miles (expressed in the Number of Passengers carried one mile). First Class.	Second Class.	Intermediate Class.	Third Class.	Fourth Class.	Total of all other sources of Passenger Traffic (expressed in Average Passenger Miles).	Excess Luggage, Parcels, Carriages, Horses, Dogs, &c. conveyed in Passenger Trains.	Grand Total.
East Indian (*a*)	6,028,011	24,559,120	22,951,289	578,723,196	—	75,497,033	Ton miles (*h*) 6,318,656	707,758,649
GUARANTEED.								
Bombay, Baroda and Central India	1,719,252	8,448,603	—	Mail 41,067,713 Ordinary 151,349,638	—	(*c*) 6,076,320	Ton miles (*h*) 2,198,426	208,661,526
Eastern Bengal	1,048,845	2,110,796	—	16,376,255	67,574,982	523,792	7,985,896	95,620,566
Great Indian Peninsula (*b*)	5,241,202	29,732,851	—	49,973,326	246,458,340	6,585,953	51,863,835	389,855,507
Madras	2,106,139	5,707,464	—	188,720,019	—	97,180	1,633,927	198,264,729
Oudh and Rohilkund	Upper 1,706,189	—	—	Lower 142,867,186	—	8,393,958	—	152,967,333
Sind, Punjab and Delhi	2,791,883	10,122,466	451,921	219,445,874	—	—	36,881,940	269,693,584
South Indian	501,853	1,830,517	—	147,351,799	—	29,537	175,975	149,889,681
Totals for East Indian and Guaranteed Railways	21,143,374	82,511,817	23,403,210	1,535,874,506	314,033,322	97,203,773	98,541,573	2,172,711,575
STATE.								
Calcutta and South-Eastern	8,576	59,867	—	4,510,157	1,491,055	8,272	228,199	6,306,126
Cawnpore and Farrukhabad	19,544	122,309	—	13,395,100	—	98,018	37,201	13,672,172
Dhond and Manmad	—	—	—	—	—	Worked by the Great Indian		
Holkar and Sindhia-Nimach	247,511	978,739	—	1,708,474	57,262,713	156,784	Ton miles (*h*) 345,658	60,354,221
Indus Valley and Kandahar	710,187	3,121,377	—	89,517,785	—	4,695,138	24,748,062	122,792,549
Muttra-Hathras	24,789	—	28,195	5,370,290	—	26,912	11,107	5,461,293
Nagpur and Chhatisgarh	31,576	185,973	—	—	7,209,200	23,368	79,357	7,529,474
Nalhati	22,764	91,998	—	2,332,342	—	11,001	9,893	2,467,998
Northern Bengal	499,157	807,050	1,567,790	28,129,920	—	1,061,541	2,542,775	34,608,233
Patna-Gaya	68,822	110,424	—	20,905,935	—	78,924	26,617	21,189,822
Punjab Northern	625,736	1,357,253	—	41,464,189	53,004,581	2,023,034	9,238,659	107,713,452
Rajputana	1,328,414	2,578,514	—	9,225,172	164,368,110	6,090,666	798,575	184,389,453
Rangoon and Irawadi Valley	159,669	761,069	—	48,230,707	—	1,879,716	—	51,031,161
Sindhia	74,173	218,642	40,989	7,761,208	—	1,023,944	Ton miles (*h*) 63,964	9,118,956
Tirhut	133,181	146,409	—	15,074,820	—	124,652	47,312	15,526,374
Wardha Coal	13,515	26,996	—	69,877	2,720,715	42,560	65,623	2,939,286
Totals for State Railways	3,967,614	10,566,620	1,636,974	287,695,983	286,056,374	17,343,630	37,933,380	645,100,575
NATIVE STATES (*i*).								
Amraoti	—	—	—	—	—	Worked by the Great Indian		
Khamgaon								
Mysore	92,932	33,087	—	5,171,292	—	112,923	122,140	5,532,374
Nizam's	215,755	959,307	—	19,504,308	—	10,785	172,654	26,862,809
Totals for Native State Railways	308,687	992,394	—	24,675,600	—	123,708	294,794	26,395,183
Totals for all Railways	25,419,675	94,070,831	25,040,184	1,848,246,089	600,089,696	114,671,111	136,669,747	2,844,207,333

(*a*) Includes Dildarnagar-Ghazipur State line.
(*b*) Includes Dhond and Manmad, Amraoti and Khamgaon State lines.
(*c*) Season tickets only.
(*h*) Omitted from totals.
(*i*) No returns received for Bhaunagar-Gondal Native State Railway.

during the Year ended 31st December 1881—*continued.*

Number of Ton Miles (expressed in the Number of Tons moved One Mile).											Railway.
Goods Traffic.											
Minerals.	General Merchandise, &c.							Total Mineral and General Merchandise, &c.	Proportion per cent. of Up and Down Traffic.		
	First or Lowest Class, except Special.	Second Class.	Third Class.	Fourth Class.	Fifth Class.	Special and Sundry.	Total of all Classes.		Up.	Down.	
232,737,304	520,252,389	80,760,650	18,735,409	6,834,479	1,786,332	103,383,889	731,643,068	964,380,392	46·27	53·73	East Indian.
											GUARANTEED.
16,723,505	—	Details omitted in Returns from India.					104,808,639	121,532,144	Not known.		Bombay, Baroda and Central India.
3,579,613	—		Ditto,	ditto,	ditto.		54,393,792	57,973,405	Ditto.		Eastern Bengal.
22,983,835	—		Ditto,	ditto,	ditto.		500,304,555	523,288,390	74·74	25·26	Great Indian Peninsula.
93,807	—		Ditto,	ditto,	ditto.		71,222,597	71,316,404	Not known.		Madras.
5,062,575	Low 11,447,252	—	Middle 4,886,577	—	High 459,642	66,981,662	83,775,133	88,837,708	60·95	39·05	Oudh and Rohilkund.
10,523,941	(d) and (e) 105,009,224	—	(f) 752,193	—	—	(g) 15,148,065	120,909,482	131,433,423	Not known.		Sind, Punjab and Delhi.
675,156	—	Details omitted in Returns from India.					39,981,446	40,656,602	Ditto,		South Indian.
292,379,736	Totals omitted, as Columns are incomplete and the classification variable.						1,707,038,732	1,999,418,468	—	—	Totals for East Indian and Guaranteed Railways.
											STATE.
32,506	(d) 805,304	—	—	—	—	(g) 16,958	822,262	854,768	Not known.		Calcutta and South-Eastern.
213,434	135,466	823,209	286,937	6,100	1,773	1,382,831	2,136,316	2,349,750	61·99	38·01	Cawnpore and Farrukhabad.
Peninsula Railway Company.				—	—	—	—	—	—	—	Dhond and Manmad.
14,199	—	—	13,973,161	—	—	1,849,729	15,822,890	15,837,089	Not known.		Holkar and Sindhia-Nimach.
3,328,446	—	Details omitted in Returns from India.					89,945,060	93,273,506	Ditto.		Indus Valley and Kandahar.
7,690	34,765	334,632	97,615	—	—	2,057	469,069	476,759	83·50	16·50	Mutra-Hathras.
395,467	—	Details omitted in Returns from India.					2,311,149	2,706,616	34·45	65·55	Nagpur and Chhatisgarh.
47,653	(d) 200,697	—	—	—	—	(g) 6,457	207,144	254,797	Not known.		Nalhati.
1,061,042	(d) 15,962,977	(e) 40,831	(f) 198,435	—	—	(g) 229,161	16,431,404	17,492,446	Ditto.		Northern Bengal.
173,892	(d) 2,391,808	—	(f) 784,320	—	—	(g) 69,875	3,246,003	3,419,895	Ditto.		Patna-Gaya.
3,276,921	—	Details omitted in Returns from India.					25,785,668	29,062,589	Ditto.		Punjab Northern.
8,710,526	—		Ditto,	ditto,	ditto.		98,764,718	107,475,244	Ditto.		Rajputana.
19,984	(d) 13,423,283	(e) 959	(f) 267,295	—	—	(g) 837,594	14,529,081	14,549,015	Ditto.		Rangoon and Irawadi Valley.
83,724	3,746,877	159,982	66,546	14,322	8,368	128,898	4,124,993	4,208,717	30·43	69·57	Sindhia.
451,911	(d) 3,212,402	(e) 194	(f) 505,831	—	—	(g) 60,401	3,778,828	4,230,739	Not known.		Tirhut.
2,288,662	—	Details omitted in Returns from India.					1,023,135	3,311,797	89·76	10·24	Wardha Coal.
20,196,007	Totals omitted, as Columns are incomplete and the classification variable.						275,397,720	299,503,727	—	—	Totals for State Railways.
											NATIVE STATES.
Peninsula Railway Company.				—	—	—	—	—	—	—	Amraoti. Khamgaon.
—	—	Details omitted in Returns from India.					934,211	934,211	49·68	50·32	Mysore.
14,455	7,203,289					669,673	7,872,962	7,887,417	Not known.		Nizam's.
14,455	Totals omitted as Columns are incomplete.					—	8,807,173	8,821,628	—	—	Totals for Native State Railways
312,500,198	Totals omitted, as Columns are incomplete and the classification variable.						1,995,243,625	2,307,743,823	—	—	Totals for all Railways.

(d) General merchandise. (e) Military stores. (f) Materials for construction. (g) Revenue stores.

TABLE No. 3.—GROSS RECEIPTS of the INDIAN RAILWAYS

Railway.	Passenger Traffic.												Receipts from Live Stock.	Receipts from	
	Receipts from Passengers.							Total Receipts from Excess Luggage, Parcels, Carriages, Horses, Dogs, &c. conveyed in Passenger Trains.	Receipts for Mail Service.	Receipts from Special Trains.	Receipts from Troop Trains.	Total Receipts from Passenger Traffic.	Passenger Receipts per Train Mile.		From Coal and Coke.	From other Minerals.
	First Class.	Second Class.	Intermediate Class.	Third Class.	Fourth or Coolie Class.	Holders of Season or Periodical Tickets.	Total Receipts from Passengers.									
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	(P.) Rs.	Rs.	Rs.	Rs.	Rs.
East Indian (*a*)	4,45,041	5,67,459	4,78,258	87,64,497	—	67,725	1,03,22,980	9,03,458	1,74,625	82,062	4,27,327	1,19,10,452	4·59	46,324	53,15,032	—
GUARANTEED.																
Bombay, Baroda and Central India	87,358	1,56,181	—	Mail 6,24,434 Ordinary 19,52,663	—	60,503	28,81,139	3,12,742	11,485	2,692	1,22,430	33,30,488	4·27	1,45,999	63,086 (*d*) 1,52,269	(*d*) 1,30,199
Eastern Bengal	55,807	54,234	—	3,08,564	10,32,547	22,533	14,73,685	1,34,761	5,539	3,299	—	16,17,284	5·27	536	1,19,288	—
Great Indian Peninsula (*b*)	3,99,975	30,472	—	10,36,756	31,84,987	15,028	54,27,218	8,51,694	65,250	24,257	—	63,68,419	2·79	97,537	5,38,398	—
Madras	1,73,224	1,70,379	—	19,58,945	—	1,556	23,04,104	3,22,309	—	16,495	—	26,42,908	2·85	47,280	1,528	—
Oudh and Rohilkund	Upper 79,978	—	—	Lower 18,65,846	—	—	19,45,825	1,12,954	—	977	—	20,59,955	4·49	353	1,20,649	—
Sind, Punjab and Delhi	1,50,024	2,11,552	9,820	27,74,866	—	—	31,46,262	4,80,043	11,250	6,229	—	36,43,784	1·30	23,725	2,48,691	—
South Indian	45,507	53,121	—	19,11,560	—	675	20,10,863	82,021	218	13,348	—	21,06,450	1·80	2,668	(*d*) 14,415	—
Totals and averages: East Indian and Guaranteed Railways	14,36,914	20,03,398	4,88,078	2,11,98,131	42,17,534	168,020	2,95,12,075	31,99,282	2,68,367	1,49,359	5,49,757	3,36,78,840	3·42	3,64,431	65,73,856	1,30,199
STATE.																
Calcutta and South-Eastern	710	2,527	—	61,925	15,005	—	80,167	3,007	25	84	—	83,283	3·46	111	1,159	—
Cawnpore and Farrukhabad	1,452	3,319	—	—	1,40,493	—	1,45,264	6,807	2,599	—	—	1,54,170	1·75	—	9,219	—
Dhond and Manmad	—	—	—	—	—	—	—	—	—	—	—	—	Worked by the Great Indian			
Holkar and Sindhia-Nimach	14,573	22,812	—	28,934	5,96,007	1,941	6,64,267	57,919	16,086	2,851	—	7,41,123	2·23	849	601	—
Indus Valley and Kandahar	37,499	58,233	—	10,44,130	—	—	11,39,862	3,01,617	25,045	3,169	29,008	14,98,701	3·19	38,783	78,988	—
Muttra-Hathras	1,619	—	796	83,439	—	—	85,854	2,935	992	—	—	89,781	3·36	—	278	—
Nagpur and Chhatisgarh	2,439	5,606	—	—	74,084	113	82,242	3,896	1,098	—	262	87,498	2·83	30	12,294	—
Nalhati	2,157	2,910	—	36,825	—	—	41,892	3,940	160	—	—	45,992	1·98	—	2,889	—
Northern Bengal	45,748	32,492	36,745	3,65,988	—	—	4,80,973	39,466	14,355	2,121	—	5,36,915	2·76	—	35,853	—
Patna-Gaya	6,447	5,164	—	3,26,650	—	—	3,38,261	7,245	821	513	—	3,46,840	6·04	—	8,336	—
Punjab Northern	41,469	60,446	—	5,60,080	5,51,000	—	12,12,945	1,16,124	18,176	—	7,058	13,54,303	2·71	9,766	76,265	—
Rajputana	78,717	85,744	—	1,62,287	16,69,548	—	19,96,296	1,70,884	45,831	21,013	1,675	22,35,699	2·05	2,394	2,07,947	—
Rangoon and Irawadi Valley	11,415	17,040	—	7,46,415	—	—	7,74,870	26,570	2,755	536	6,169	8,10,900	3·86	15,116	702	—
Sindhia	5,476	5,435	872	1,19,681	—	—	1,31,464	9,065	4,239	2,994	3,123	1,50,885	6·29	15	2,582	—
Tirhut	11,756	7,067	—	1,92,423	—	—	2,11,246	14,685	2,559	1,221	—	2,29,711	3·52	—	21,426	—
Wardha Coal	997	778	—	1,430	28,201	—	31,406	2,849	1,800	—	—	36,055	1·34	—	73,763	—
Totals and averages: State Railways	2,62,474	3,09,573	38,413	37,30,157	30,74,338	2,054	74,17,009	7,66,509	1,36,541	34,502	47,295	84,01,856	3·16	65,696	5,32,307	—
NATIVE STATES (*m*).																
Amraoti	—	—	—	—	—	—	—	—	—	—	—	—	Worked by the Great Indian			
Khamgaon																
Mysore (*c*)	5,739	586	—	80,239	—	—	86,564	4,420	1,715	2,395	711	95,305	2·75	44	—	—
Nizam's	17,834	15,031	—	2,18,369	—	—	2,51,234	42,520	—	1,150	—	2,94,904	2·54	3,365	487	—
Totals and averages: Native State Railways	23,573	15,617	—	2,98,608	—	—	3,37,798	46,940	1,715	3,545	711	3,90,709	2·64	3,409	487	—
Indus Steam Flotilla	—	—	—	8	—	—	8	—	—	—	—	8	—	—	—	—
Totals and averages: All Railways and Indus Steam Flotilla	17,22,961	23,28,588	5,26,491	2,52,26,904	72,91,872	1,70,074	3,72,66,890	49,12,731	4,06,623	1,87,406	5,97,763	4,21,71,413	3·20	4,33,536	71,06,150	1,30,199

(*a*) Includes Dildarnagar-Ghazipur State line.
(*b*) Includes Dhond and Manmad, Amraoti and Khamgaon State lines.
(*c*) No returns received for Bhaunagar-Gondal Native State Railway.
(*c*) Not open for public traffic till 1st February 1881.
(*d*) Company's own material.

during Year ended 31st December 1881.

Goods Traffic.										Total Receipts from Passenger and Goods Traffic.	Passenger and Goods Receipts per Train Mile.	Total Miscellaneous Receipts.	Miscellaneous Receipts per Train Mile.	Total Receipts from Passengers, Goods, and Miscellaneous.	Total Receipts per Train Mile.	Railway.
Minerals.	Receipts from General Merchandise (*exclusive of* Live Stock and Minerals).							Total Receipts from Goods Traffic.	Goods Receipts per Train Mile.							
Total Receipts from Minerals.	From First or Lowest Class.	From Second Class.	From Third Class.	From Fourth Class.	From Fifth or Highest Class.	From Special and Sundry.	Total.									
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	(G.) Rs.	Rs.	(P.)+(G.) Rs.	Rs.	(M.) Rs.	Rs.	(P.)+(G.)+(M.) Rs.	Rs.	
53,15,032	1,56,60,536	54,94,262	16,64,501	6,97,421	2,80,659	31,49,438	2,68,96,817	3,22,58,173	5·60	4,41,68,625	5·29	12,81,879	0·15	4,54,50,504	5·44	East Indian.
																GUARANTEED.
3,45,554	Details omitted in Returns from India.						56,86,660	61,78,213	6·96	95,08,701	5·70	2,36,432	0·14	97,45,133	5·85	Bombay, Baroda and Central India.
1,19,288	Ditto		ditto		ditto.		33,06,210	34,26,034	7·94	50,43,318	6·83	85,751	0·11	51,29,069	6·95	Eastern Bengal.
5,38,398	Ditto		ditto		ditto.		2,46,05,506	2,52,41,441	4·54	3,16,09,860	4·03	4,46,963	0·06	3,20,56,823	4·09	Great Indian Peninsula.
1,528	Ditto		ditto		ditto.		34,27,997	34,76,814	3·69	61,19,722	3·27	1,91,590	0·10	63,11,312	3·38	Madras.
1,20,649	Low 4,17,072	—	Middle 3,61,567	—	High 65,387	15,62,106	24,06,132	25,27,134	2·92	45,86,189	3·46	3,42,541	0·26	49,28,730	3·72	Oudh and Rohilkund.
2,48,691	—	(e) 49,96,973	—	(g) 21,296	(h) 4,03,525	—	54,21,794	56,94,210	2·03	93,37,994	3·34	6,82,850	0·24	1,00,20,844	3·58	Sind, Punjab and Delhi.
14,415	Details omitted in Returns from India.						(i) 15,24,450	15,41,533	1·32	36,47,983	3·12	1,07,705	0·09	37,55,688	3·21	South Indian.
67,03,555	Totals omitted, as Columns are incomplete.						7,32,75,566	8,03,43,552	4·37	11,40,22,352	4·38	33,75,711	0·14	11,73,98,103	4·54	Totals and averages: East Indian and Guaranteed Railways.
																STATE.
1,159	—	(e) 35,165	—	—	(h) 651	—	35,816	37,086	2·21	1,20,369	2·94	32,144	0·79	1,52,513	3·73	Calcutta and South-Eastern.
9,219	6,350	24,835	27,317	735	255	53,399	1,12,891	1,22,110	2·73	2,76,280	2·07	2,305	0·02	2,78,585	2·09	Cawnpore and Farrukhabad.
Peninsula Railway Company.		—	—	—	—	—	—	—	—	—	—	—	—	—	—	Dhond and Manmad.
601	—	—	11,18,871	—	—	74,275	11,93,146	11,93,228	3·92	19,34,351	3·03	11,832	0·02	19,46,183	3·05	Holkar and Sindhia-Nimach.
78,988	Details omitted in Returns from India.						34,23,622	35,41,393	2·69	50,40,094	2·82	(k) 2,88,596	0·16	(k) 53,28,690	2·98	Indus Valley and Kandahar.
278	1,403	24,844	15,038	—	—	906	42,191	42,469	2·51	1,32,250	3·63	3,035	0·07	1,35,335	3·10	Muttra-Hathras.
12,294	Details omitted in Returns from India.						1,76,986	1,89,310	2·99	2,76,308	2·94	4,721	0·05	2,81,529	2·99	Nagpur and Chhatisgarh.
2,389	—	(e) 16,261	—	—	(h) 244	—	16,505	19,394	1·29	65,386	1·71	1,670	0·04	67,056	1·75	Nalhati.
35,858	—	(e) 9,73,211	(f) 3,255	(g) 7,702	(h) 8,491	—	9,92,659	10,28,517	3·14	15,65,432	3·09	33,856	0·06	15,99,288	3·06	Northern Bengal.
8,336	—	(e) 1,30,615	—	(g) 18,857	(h) 1,630	—	1,51,102	1,59,438	2·64	5,06,278	4·29	7,153	0·06	5,13,431	4·35	Patna-Gaya.
76,265	Details omitted in Returns from India.						19,04,186	19,90,217	3·24	33,44,520	3·01	1,28,414	0·11	34,72,934	3·02	Punjab Northern.
2,07,947	Ditto		ditto		ditto.		46,99,566	49,09,907	2·72	71,45,606	2·47	96,641	0·03	72,42,247	2·50	Rajputana.
702	—	(e) 6,76,736	(f) 77	(g) 9,630	—	13,294	6,99,737	7,15,555	3·74	15,26,455	3·80	17,168	0·04	15,43,623	3·45	Rangoon and Irawadi Valley.
2,582	66,742	11,979	6,655	1,820	1,210	6,692	95,698	97,695	2·29	2,48,580	3·73	1,819	0·02	2,50,399	3·75	Sindhia.
21,426	—	(e) 1,96,690	(f) 17	(g) 18,307	(h) 2,743	—	2,17,757	2,39,183	2·48	4,68,894	2·90	(k) 18,094	0·11	(k) 4,86,988	3·01	Tirhut.
73,763	Details omitted in Returns from India.						56,334	1,30,097	2·74	1,66,152	2·23	(l) 3,09,836	4·17	(l) 4,75,988	6·40	Wardha Coal.
5,32,307	Totals omitted, as Columns are incomplete.						1,38,17,596	1,44,15,599	2·75	2,28,17,455	2·93	9,57,334	0·38	2,37,74,789	3·28	Totals and averages: State Railways.
																NATIVE STATES.
Peninsula Railway Company.			—	—	—		—	—	—	—	—	—	—	—	—	Amraoti. Khamgaon.
—	Details omitted in Returns from India.						33,803	33,847	0·86	1,20,652	3·61	1,873	0·25	1,31,525	1·78	Mysore.
487	Ditto		ditto		ditto.	30,474	4,37,698	4,41,550	3·23	7,36,454	2·91	20,380	0·08	7,56,834	2·99	Nizam's.
487	Totals omitted, as Columns are incomplete.						4,71,501	4,75,397	2·04	8,66,106	3·26	22,253	0·16	8,88,359	2·38	Totals and averages: Native State Railways.
—	—	—	—	—	—	—	61,041	61,041	—	61,049	—	92,254	—	1,53,303	—	Indus Steam Flotilla.
72,36,349	Totals omitted, as Columns are incomplete.						8,76,25,704	9,52,95,589	3·22	13,77,67,002	3·82	44,47,552	0·31	14,22,14,554	4·13	Totals and averages: All Railways and Indus Steam Flotilla.

(e) General merchandise.
(f) Military stores.
(g) Materials for construction.
(h) Revenue stores.
(i) Includes Rs. 1,05,762 for carriage of Revenue stores.
(k) Excludes Steam boat earnings.
(l) Includes Warora Colliery receipts.

TABLE No. 4.—EXPENDITURE ON REVENUE ACCOUNT

Railway.	Maintenance and Renewal of Way and Works.					Cost of producing Locomotive Power: Wages and Materials.			Repairs and Renewals of Carriages and Wagons.			Coaching and Merchandise.			Collection and Delivery of Goods.		
	Ordinary.	Special.	Gross.	Per Train Mile.	Per cent. of Gross Receipts.	Gross.	Per Train Mile.	Per cent. of Gross Receipts.	Gross.	Per Train Mile.	Per cent. of Gross Receipts.	Gross.	Per Train Mile.	Per cent. of Gross Receipts.	Gross.	Per Train Mile	Per cent. of Gross Receipts.
	Rs.	Rs.	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	
East Indian (*a*)	43,64,550	—	43,64,550	0·52	9·60	37,51,163	0·45	8·25	14,61,069	0·17	3·22	26,38,472	0·32	5·81	—	—	—
GUARANTEED.																	
Bombay, Baroda and Central India.	9,15,502	—	9,15,502	0·55	9·40	14,37,560	0·86	14·75	4,41,553	0·27	4·53	6,27,079	0·38	6·44	4,487	—	0·05
Eastern Bengal	2,98,675	—	2,98,675	0·40	5·82	5,00,301	0·67	9·76	1,97,057	0·26	3·84	5,46,945	0·73	10·66	—	—	—
Great Indian Peninsula (*b*)	34,89,335	1,06,143	35,95,478	0·46	11·21	60,71,596	0·77	18·94	23,17,235	0·30	7·23	21,59,246	0·28	6·74	Included under preceding Heading.		
Madras	10,55,122	1,99,175	12,54,297	0·67	19·88	13,25,843	0·71	21·01	4,84,916	0·26	7·68	6,52,798	0·35	10·34	—	—	—
Oudh and Rohilkund	6,82,478	—	6,82,478	0·52	13·87	9,69,616	0·73	19·67	2,82,388	0·21	5·73	5,30,047	0·40	10·75	1,158	—	0·02
Sind, Punjab and Delhi	11,06,383	4,24,579	15,30,962	0·54	15·27	24,30,932	0·87	24·25	6,81,077	0·24	6·79	10,56,393	0·37	10·54	2,999	—	0·03
South Indian	6,69,212	41,805	7,11,017	0·56	13·91	8,86,611	0·79	23·61	2,36,291	0·18	6·29	3,40,646	0·27	9·07	413	—	0·02
Totals and averages for East Indian and Guaranteed Railways	1,25,82,257	7,71,702	1,33,53,959	0·53	12·99	1,73,73,622	0·72	17·53	61,01,586	0·23	5·66	85,51,626	0·38	8·79	9,057	—	0·03
STATE.																	
Calcutta and South-Eastern	44,734	—	44,734	1·10	29·33	23,090	0·57	15·14	3,030	0·07	1·99	14,130	0·35	9·26	—	—	—
Cawnpore and Farrukhabad	39,179	—	39,179	0·30	14·06	37,822	0·28	13·58	2,132	0·02	0·77	33,478	0·25	12·01	10	—	—
Dhond and Manmad	—	—	—	—	—	—	—	—	—	—	—	—	Worked by the Great Indian				
Holkar and Sindhia-Nimach	3,00,300	93,700	3,94,000	0·60	20·25	4,89,700	0·75	25·16	1,01,600	0·15	5·22	2,12,000	0·32	10·90	—	—	—
Indus Valley and Kandahar	8,09,035	—	8,09,035	0·45	15·18	16,67,618	0·94	31·30	2,18,561	0·12	4·10	6,31,317	0·35	11·84	954	—	0·02
Muttra-Hathras	13,831	—	13,831	0·31	10·22	16,641	0·38	12·30	3,793	0·08	2·80	15,636	0·36	11·55	4,585	0·11	3·39
Nagpur and Chhatisgarh	36,815	—	36,815	0·39	13·08	66,992	0·71	23·79	19,024	0·20	6·76	49,034	0·52	17·42	—	—	—
Nalhati	14,473	—	14,473	0·38	21·58	12,409	0·32	18·51	3,287	0·09	4·90	8,053	0·21	12·01	—	—	—
Northern Bengal	2,10,290	—	2,10,290	0·40	13·15	2,68,540	0·51	16·79	40,503	0·08	2·53	1,45,809	0·28	9·12	—	—	—
Patna-Gaya	37,918	—	37,918	0·32	7·39	87,874	0·75	17·11	21,914	0·19	4·27	43,011	0·36	8·38	—	—	—
Punjab Northern	4,84,565	—	4,84,565	0·42	13·95	15,34,301	1·33	44·18	1,53,287	0·13	4·41	4,17,051	0·36	12·01	—	—	—
Rajputana	8,14,230	1,20,719	9,34,949	0·32	12·9	21,28,853	0·74	29·3	2,73,037	0·09	3·7	5,61,908	0·19	7·6	—	—	—
Rangoon and Irawadi Valley.	2,18,857	—	2,18,857	0·49	14·18	2,73,966	0·61	17·75	49,092	0·11	3·18	2,18,563	0·49	14·16	—	—	—
Sindhia	37,681	—	37,681	0·57	15·05	41,205	0·62	16·46	13,219	0·19	5·28	22,031	0·33	8·80	—	—	—
Tirhut	66,959	—	66,959	0·41	13·75	76,921	0·47	15·80	14,388	0·09	2·95	62,595	0·39	12·85	—	—	—
Wardha Coal	24,645	—	24,645	0·33	5·18	41,651	0·56	8·75	18,558	0·25	3·90	20,615	0·27	4·20	2	—	—
Totals and averages for State Railways	31,53,512	2,14,419	33,67,931	0·45	14·61	67,67,583	0·63	20·39	9,35,425	0·12	3·78	24,54,625	0·33	10·80	5,551	0·11	1·70
NATIVE STATES. (*l*)																	
Amraoti Khamgaon	—	—	—	—	—	—	—	—	—	—	—	—	Worked by the Great Indian				
Mysore (*g*)	—	—	(*h*) —	—	—	37,615	0·50	28·60	6,108	0·08	4·64	14,662	0·24	11·14	—	—	—
Nizam's	74,244	—	74,244	0·29	9·81	1,43,014	0·57	18·89	53,993	0·21	7·14	97,965	0·38	12·95	—	—	—
Totals and averages for Native State Railways	74,244	—	74,244	0·29	9·81	1,80,629	0·53	23·74	60,101	0·14	5·39	1,12,627	0·29	12·04	—	—	—
Indus Steam Flotilla	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals and averages for all Railways and Indus Steam Flotilla	1,58,10,013	9,86,121	1,67,96,134	0·47	11·61	2,43,21,834	0·65	17·10	70,97,112	0·16	4·89	1,11,18,878	0·35	7·61	14,608	0·11	0·06

(*a*) Includes Dildarnagar-Ghazipur State Railway.
(*b*) Includes Dhond and Manmad, Amraoti and Khamgaon State lines.
(*g*) Not open for public traffic till 1st February 1881.
(*h*) Charged to Capital.
(*l*) No returns received for Bhaunagar-Gondal Native State Railway.

during Year ended 31st December 1881.

Rates and Taxes.			Compensation for Personal Injury, &c., Damage and Loss of Goods.					Legal and Parliamentary Expenses.			Miscellaneous Working Expenditure, not included in the foregoing.			Total Working Expenditure.			Railway.
Gross.	Per Train Mile.	Per cent. of Gross Receipts.	Personal.	Goods.	Gross.	Per Train Mile.	Per cent. of Gross Receipts	Gross.	Per Train Mile.	Per cent. of Gross Receipts.	Gross.	Per Train Mile.	Per cent. of Gross Receipts.	Gross.	Per Train Mile.	Per cent. of Gross Receipts.	
Rs.	Rs.		Rs.	Rs.	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		
56,125	0·01	0·12	—	2,926	2,926	—	0·01	9,208	—	0·02	20,86,132	0·25	4·59	1,43,69,645	1·72	31·62	East Indian.
																	GUARANTEED.
10,040	0·01	0·10	—	7,237	7,237	—	0·07	2,279	—	0·02	5,53,692	0·33	5·68	39,99,429	2·40	41·04	Bombay, Baroda and Central India.
11,994	0·01	0·23	—	30,792	30,792	0·04	0·60	2,251	—	0·05	3,09,382	0·41	6·03	18,97,667	2·55	36·99	Eastern Bengal.
16,760	—	0·05	—	(i) 5,860	5,860	—	0·02	(c) —2,754	—	—	16,73,914	0·21	5·22	1,58,37,335	2·02	49·40	Great Indian Peninsula.
14,613	0·01	0·23	5,769	442	6,211	—	0·10	10,695	0·01	0·17	4,86,083	0·26	7·70	42,35,456	2·27	67·11	Madras.
902	—	0·02	30	147	177	—	—	—714	—	0·01	4,85,979	0·37	9·86	29,53,031	2·23	59·91	Oudh and Rohilkund.
5,823	—	0·05	434	20,909	21,343	—	0·21	4,640	—	0·04	10,67,635	0·38	10·65	68,01,809	2·43	67·87	Sind, Punjab and Delhi.
9,654	0·01	0·26	8,957	237	9,194	0·01	0·25	1,934	—	0·05	3,22,202	0·26	8·58	25,17,962	1·99	67·04	South Indian.
1,25,916	0·01	0·13	15,190	68,550	83,740	0·02	0·18	27,869	0·01	0·05	69,85,019	0·31	7·29	5,26,12,334	2·03	44·81	Totals and averages for East Indian and Guaranteed Railways
																	STATE.
1,357	0·03	0·89	—	(i) 574	574	0·01	0·38	—	—	—	14,393	0·35	9·44	1,01,308	2·48	66·43	Calcutta and South-Eastern.
—	—	—	—	63	63	—	0·02	5	—	—	81,664	0·61	29·32	1,94,347	1·46	69·76	Cawnpore and Farrukhabad.
Peninsula Railway Company.				—	—	—	—	—	—	—	—	—	—	—	—	—	Dhond and Manmad.
—	—	—	—	379	379	0·01	0·02	—	—	—	1,45,000	0·22	7·45	13,42,679	2·05	68·99	Holkar and Sindhia-Nimach.
—	—	—	—	(i) 42,750	42,750	0·02	0·80	1,248	—	0·02	8,14,795	0·46	15·39	(d) 41,86,278	2·34	78·56	Indus Valley and Kandahar.
—	—	—	—	82	82	—	0·06	—	—	—	39,064	0·92	28·87	93,632	2·15	69·19	Muttra-Hathras.
—	—	—	—	59	59	—	0·02	—	—	—	43,549	0·47	15·47	2,15,473	2·29	76·54	Nagpur and Chhatisgarh.
94	—	0·14	—	—	—	—	—	124	—	0·18	14,631	0·38	21·82	53,071	1·38	79·14	Nalhat
87	—	—	—	2,666	2,666	0·01	0·17	103	—	0·01	1,69,837	0·32	10·62	8,37,835	1·60	52·39	Northern Bengal.
411	—	0·08	—	—	—	—	—	206	—	0·04	1,42,951	1·21	27·84	3,34,285	2·83	65·11	Patna-Gaya.
—	—	—	—	50,198	50,198	0·04	1·44	—	—	—	4,70,564	0·41	13·55	31,99,966	2·71	89·54	Punjab Northern.
—	—	—	—	2,961	2,961	—	0·4	41	—	—	4,73,457	0·17	6·5	43,75,206	1·51	60·4	Rajputana.
8,633	0·02	0·56	—	339	339	—	0·02	100	—	—	1,28,995	0·29	8·36	8,98,545	2·01	58·21	Rangoon and Irawadi Valley.
476	0·01	0·19	—	21	21	—	0·01	59	—	0·02	17,541	0·26	7·00	1,32,233	1·98	52·81	Sindhia.
486	—	0·10	—	58	58	—	0·01	25	—	0·01	57,723	0·36	11·85	(e) 2,79,155	1·72	57·32	Tirhut.
—	—	—	—	632	632	0·01	0·14	—	—	—	(f) 3,91,158	5·26	82·18	(f) 4,96,711	6·68	104·35	Wardha Coal.
11,541	0·02	0·32	—	1,00,832	1,00,832	0·16	0·26	1,911	—	0·04	30,05,322	0·78	19·70	1,66,59,724	2·02	76·07	Totals and averages for State Railways.
																	NATIVE STATES.
Peninsula Railway Company.				—	—	—	—	—	—	—	—	—	—	—	—		Amraoti. Khamgaon.
—	—	—	—	(i) 1,028	1,028	0·01	0·78	39	—	0·02	18,320	0·24	13·92	77,772	1·05	59·14	Mysore.
—	—	—	720	3,211	3,931	0·02	0·52	—	—	—	90,913	0·36	12·01	4,64,060	1·83	61·32	Nizam's.
—	—	—	720	4,239	4,959	0·01	0·65	39	—	0·02	1,09,233	0·30	12·96	5,41,832	1·65	60·99	Totals and averages for Native State Railways.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,95,677	—	192·87	Indus Steam Flotilla.
1,37,460	0·01	0·15	15,910	1,73,621	1,89,531	0·01	0·19	29,759	0·01	0·04	1,00,99,574	0·59	7·60	7,01,00,567	(k) 2·02	49·29	Totals and averages for all Railways and Indus Steam Flotilla.

(c) A credit.
(d) Excludes expenditure on account of Steamboat Service.
(e) Excludes cost of working Steam Ferry.
(f) Warora Colliery expenditure included.
(i) A part of this is for personal compensation.
(k) Railways only.

SUMMARY.

Railways open.

93. The total extent of railways open for traffic in India is 9,875¼ miles, of which 6,142¾ miles are in the hands of Companies, 3,286¾ miles are State and Provincial lines, and 445¾ miles belong to Native States. A length of 726¾ miles was completed and opened during the year 1881. The principal additions were the extensions of the Punjab Northern Railway to Attock and Khusalghar, since extended to Peshawar, thus completing continuous railway communication between the extreme North-West frontier and the principal towns and seaports; 135 miles on the Malwa line, connecting Nasirabad with Nimach; 36¾ miles between Cawnpore and Farrukhabad; 45 miles of the Nagpur-Chhatisgarh line and 87½ miles of the Kathiawar system; and 58 miles of the line in the Mysore State, which will connect its capital with Bangalore.

In progress.

94. At the same time other works have been carried on with activity in various parts of India. A section of the Bengal Central line will probably be opened this year. An energetic commencement has been made in Assam. In Tirhut and in Oudh extensions are being made. A second line is being laid down in Burma. An important system is in course of construction in the Southern Marhatta Country under a contract made with a Company. The Hill stations of Naini Tal, in the North-West Provinces, and of Ootacamund, on the Nilgiri Hills, are about to be connected with the railways in the plains. Companies have been formed for both these objects under contracts made with the Government. In the Nizam's dominions an extension of the railway at Haidarabad is in contemplation. The bridge over the Ganges at Benares, and that over the Hugli for connecting the East Indian and the Eastern Bengal Railways, are now being executed.

New projects.

95. Various projects have also been taken up by private Companies, who seem prepared to carry them out independently of any pecuniary assistance from Government. Among them is a line to Cawnpore and Gwalior, in continuation of that now being constructed from the Great Indian Peninsula Railway at Itarsi to Bhopal; also a line from the bank of the river Ganges opposite Patna to Bahraich in Oudh. Parties have likewise put forward projects for direct railway communication between the Central Provinces and Calcutta.

Capital.

96. The whole capital outlay on the railways amounted on the 31st December last to about 134,200,581*l.*, of which 32,293,415*l.* (at the exchange of 2*s.* = a rupee) has been laid out on State and Provincial lines, 2,590,608*l.* on lines in Native States, 67,329,179*l.* on Guaranteed lines, and 31,987,379*l.* on the East Indian Railway. The average cost per mile of the 5 ft. 6 in. gauge lines has been about 16,000*l.*, of metre gauge lines about 7,000*l.* The average cost of the two together is about 13,500*l.* per mile.

Revenue.

97. The net revenue from the railways, according to the rates of exchange adopted, and after deducting all expenses for maintaining and working them, amounted to 6,952,714*l.*, compared with 6,147,043*l.* in the previous year. The charge during the year for interest on the capital expended amounted to 3,272,651*l.* in the case of the Guaranteed lines, and taking the rate of 4 per cent., 1,395,360*l.* for State Railways. The surplus profits earned by the Guaranteed lines and East Indian were 652,195*l.* and 1,031,933*l.* respectively. Of this amount 326,097*l.* was paid to the Guaranteed Companies, and 206,386*l.* to the East Indian Railway Company, as their shares of surplus profits, the Government retaining 326,097*l.* from the former, and 825,547*l.* from the East Indian profits.

Gross receipts and Expenditure.

98. The gross receipts in 1881 amounted to 13,725,953*l.*, compared with 12,457,469*l.* of the previous year, and the expenses 6,773,239*l.*, compared with 6,310,426*l.* The East Indian Railway earned 4,541,147*l.*, at an expenditure of 1,446,316*l.* The gross receipts from the Guaranteed lines amounted to 6,718,492*l.*, and the expenditure to 3,607,668*l.*; from the State lines 2,466,314*l.*, the expenditure being 1,719,255*l.*

99. The total net earnings on all the lines yielded a return of nearly 5*l.* 3*s.* per cent. per annum, compared with 4*l.* 15*s.* in 1880. The East Indian and the Guaranteed lines together produced 6*l.* 4*s.* per cent. The Guaranteed lines, separated from the

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Note.—The returns expected from India regarding Canals and Irrigation have not been received. I regret, therefore, that I am unable to continue the information on these works which was commenced in the last Report.

East Indian, yielded 5*l.* per cent., and the State lines nearly 2*l.* 3*s.* The East Indian alone produced nearly 9*l.* 14*s.* per cent. The Great Indian Peninsula earned 6·28*l.* per cent., the Eastern Bengal 9·46*l.* per cent., the Bombay and Baroda 6·55*l.* per cent. Of the State lines, the Rangoon and Irawadi earned 5·04*l.* per cent., the Rajputana-Malwa 3·94*l.* per cent., and the Northern Bengal 3·63*l.* per cent.

Passengers.

100. The number of passengers increased from 48,066,060 in 1880 to 52,271,133 in 1881. The proportion per cent. of first class was ·39, of second, 1·74, and of the lower classes, 97·74. The receipts from passengers were 4,089,842*l.*, compared with 3,899,701*l.* of 1880.

Merchandise.

101. The aggregate quantities of goods carried by the railways amounted to 13,211,082 tons, compared with 10,453,137 of the previous year. The amount received for the conveyance of the same was 9,151,168*l.*, compared with 7,918,356*l.* in 1880. The great increase was in grain and cotton. Last year has demonstrated, not for the first time, the readiness and ease with which India can produce a supply of food grain beyond her own requirements. This remark applies to other commodities as well. Frequently, when there has been a demand for certain articles in Europe, and a falling off in the usual sources of supply, India has stepped in and filled the void. This took place when, during the strife in America, cotton was exported from Bombay to an enormous extent. It also occurred during the war with Russia in 1855, when a trade in jute, which has continued ever since, sprang up to supply the deficiency of hemp from the Baltic.

Rolling Stock.

102. The rolling stock employed last year in working the railways consisted of 2,113 locomotives, 4,823 passenger carriages, and 41,089 trucks. The total train mileage was 34,403,205, compared with 30,172,323 of 1880.

Fuel.

103. The fuel consumed amounted to 559,660 tons of coal, 154,318 of wood, 7,935 of coke, and 9,360 of patent fuel. Of this, 175,951 tons of coal were supplied from England.

Employés.

104. The persons employed in working and maintaining the lines consisted of 3,763 Europeans, 3,771 East Indians, and 162,043 Natives. The proportion of the last was 95·6 per cent. of the whole. The employment of Natives as drivers is gradually increasing. Between four and five hundred are now doing work in that capacity.

General results.

105. The results of the year show that the railways, taken as a whole, have made a marked progress, and that they are in a prosperous condition. They have earned more and expended proportionately less. Traffic has increased with a healthy growth, resting on the solid foundations of increased trade and intercourse, and exhibiting on most lines gradually progressive mileage receipts. The net revenue per mile increased from 826*l.* in 1880 to 885*l.* in 1881, notwithstanding that there was a considerable increase in the open mileage. The returns for the current year also are such as to justify the expectation that this improvement will be continued, and that the revenue will exceed that of any previous year.

106. Your Lordship is aware that the annual review of railway proceedings in India is in future to be prepared by Government officers in that country. In relinquishing the duty which I have had the honour to perform for the last twenty-two years, I may be allowed to refer briefly to the changes which have taken place during that period, not only in railway affairs, but in the general condition of the country.

Progress between 1860 and 1882.

107. In the year 1860, 842 miles of railway were open for traffic, and 2,232 miles were under construction. A capital expenditure of 31,171,353*l.* had taken place. The gross revenue amounted to 586,328*l.*, and the net to 303,180*l.*, being at the rate of 1*8s.* per cent. on the expenditure. Money was being raised by the Companies under a guarantee of five per cent. interest from the Government.

108. At the present time 9,875 miles of railway are open; the work of construction is still progressing. A capital expenditure of 134,260,581*l.* has been incurred. The gross revenue is 13,725,953*l.*, and the net 6,952,714*l.*, or at the rate of about 5*l.* per cent. on the capital. Money has been raised on a guarantee of 3½ per cent., and lately private Companies have come forward with projects without seeking any pecuniary aid from Government.

109. The policy with regard to railways in India has gone through various phases. It was inaugurated under the advice of Lord Dalhousie, with the concurrence of the Home authorities, by the employment of Companies under a system of guarantee. All

efforts to raise money without a guarantee failed, and no other means was then available for carrying out even the limited extent of railways which was required as a commencement. The terms granted, which, with our present experience, may seem open to objection, and which have been regarded as excessively liberal, were considered necessary thirty years ago in order to obtain the money from English capitalists. Under this system 99,996,191*l.* has been raised for making 6,122 miles of railway which now produce a net revenue of 6,210,775*l.*

110. A change in this policy was made in 1870, when a system of State lines was introduced, during the Viceroyalty of Lord Lawrence, and, as the 5 ft. 6 in. gauge was considered needlessly large, a lighter description of railway, with a metre gauge, was fixed upon for such lines. The capital has, for the most part, been raised by Government loans at rates of interest varying from 3 to 4¾ per cent., and the work of construction and management has been carried on by Government officers. The extent of railway under this system opened on the 31st December 1881, was 3,704½ miles, of which 2,174½ miles are on the metre gauge. Including the outlay on 1,583 miles still under construction the cost has been 34,294,390*l.*, and the net revenue now derived from the lines open for traffic is 741,939*l.* Included among State lines are certain which are termed "Provincial," being undertaken by Local Governments, under arrangements with the Supreme Government, the revenue of the provinces being primarily responsible for the interest on the borrowed capital. Several very useful and lucrative lines have been made by this means.

111. The next development of railway policy has been a return to the agency of Companies, who, either by a modified guarantee or by arrangements involving no ultimate pecuniary assistance, undertake railways on their own merits in the hope of earning a fair rate of interest on the money invested in them. In these cases interest is advanced either by the Government or out of Capital during construction. The Government reserve the option of purchasing at certain periods, and at the end of a term of 99 years the railways become the property of the State, the rolling stock, &c., being paid for at a valuation.

112. By these various methods an important system of railways has been established and is being extended, and a marvellous change in the moral and material condition of the country has been produced. Not only have the people who travelled on the railways increased from 3,837,324 in the year 1860 to 52,271,133 in 1881, but the merchandise carried has grown from 632,613 tons to 11,637,001 tons. The sum received for the conveyance of passengers and goods in 1860 was 586,328*l.*; in 1881 it had increased to 13,725,953*l.* The value of exports has risen from 34,090,154*l.* to 75,911,723*l.*, and of imports from 34,170,793*l.* to 62,113,984*l.* The revenue has increased from 53,107,359*l.* in the year 1865–66 (the earliest year for which returns have been received based on the present system of making up the accounts) to 70,348,457*l.* (the Regular Estimate for 1881–82, after deducting extraordinary receipts). The mineral resources of the country have been partially developed. The area of cultivated land has been enlarged. Wages have risen. The effects of famines have been mitigated. A large trade in wheat with this country has been started. In 1860, not a hundredweight of wheat had been exported from India; last year, 9,379,236 cwt. were consigned to the United Kingdom. In fact, the indirect are greater than the direct gains, though not measurable with the same exactitude. For to railways is greatly due the extended trade, the increased revenue, the success of the great fiscal reforms which have of late been effected, and the improved condition of the people.

I have the honour to be,

My Lord Marquis,

Your Lordship's very obedient humble Servant,

JULAND DANVERS.

APPENDICES.

APPENDIX I.

This INDENTURE made the first day of June 1882 between the Secretary of State in Council of India of the one part and the Southern Mahratta Railway Company Limited of the other part:

Witnesseth and it is hereby agreed and declared as follows :—

Interpretation of Terms.

1. In this Contract

The expression "The Secretary of State" means the Secretary of State in Council of India:

The expression "The Company" means the Southern Mahratta Railway Company Limited:

The expression "The projected railway" means and includes the four several lines of railway mentioned in the 3rd Section of this Contract and any such of the lines of railway particularized in the 48th Section of this Contract as the Secretary of State may hereafter under the powers conferred on him by that Section require the Company to construct.

Duration of Contract.

2. This Contract shall continue in force until the 30th day of June 1932 subject to the provisions hereinafter contained for determining the same.

Construction of Lines.

3. The Company shall with due diligence and expedition and in accordance in all respects with the directions of the Secretary of State construct on routes to be selected and determined by the Secretary of State and on land to be provided by him as hereinafter stipulated the four several lines of railway hereinafter mentioned (that is to say):—

(1.) A line from the terminus of the West of India Portuguese Guaranteed Railway on the Portuguese Frontier *vid* Gadak to Bellary.
(2.) A line fram Gadak to Sholapur.
(3.) A branch to Bankapur.
(4.) A branch to Belgaum.

Together with all such stations station yards offices warehouses houses for employés machinery conveniences and works as in the opinion of the Secretary of State shall be necessary or proper for the purposes of the said lines of railway respectively either as regards the due working of the same or as regards the permanence of the same and the protection of the same from destruction or injury by inundation tempest or otherwise. The railways to be constructed by the Company under this section shall be of the mètre gauge and shall in general structural character conform in all respects with the now established standard of railways in India on that gauge Designs and estimates in relation to the construction or execution of all or any of the lines of railway stations and other works to be constructed and executed under this section shall if required be furnished by the Company to the Secretary of State and be subjected to his approval or the Secretary of State may furnish designs to the Company and the Company shall in that case be bound to follow them It is intended that the lines of railway mentioned in this section shall be called "The Southern Mahratta Railway."

Notification to Company of route of Railways.

4. The Secretary of State shall from time to time notify to the Company the route of the projected railway so far as such route shall from time to time have been determined by him.

Situation of Stations &c.

5. The Secretary of State shall have power to determine the situation and dimensions of all stations station yards offices warehouses houses for employés conveniences and works to be constructed in connection with or as part of the projected railway.

As to certain existing Surveys &c.

6. The Secretary of State having caused various surveys and plans to be made and works to be executed with the view of facilitating and expediting the construction of the projected railway or

some part or parts thereof will allow the Company to have the benefit of the same surveys plans and works but the Company shall discharge all the now existing obligations and liabilities of the Secretary of State under contracts for the execution of works relating to the construction of the projected railway or any part or parts thereof.

Land &c.

7. The Secretary of State shall from time to time provide the land which he shall consider requisite for the construction of the projected railway and for the stations station yards offices warehouses houses for employés conveniences and works necessary or proper for the purposes of the same railway and shall allow the Company to have possession of the land so provided The Company shall from time to time with the sanction of the Secretary of State as soon as practicable go out of possession of and relinquish to the Secretary of State such of the land of which the Company shall have been allowed possession under this section as shall for the time being have become unnecessary to be retained possession of by the Company for any of the purposes of this Contract And as often as in the opinion of the Secretary of State it shall appear to be unnecessary that the Company shall retain possession of any particular land of which the Company shall have been allowed possession under this section or of which possession shall have been allowed or delivered to the Company under any other provision in this Contract the Secretary of State shall certify such his opinion to the Company Upon receipt of such certificate or so soon thereafter as may be the Company shall state in writing whether it acquiesces in the opinion of the Secretary of State or whether it objects thereto and if so the grounds of its objection If no objection is stated by the Company or if the grounds of its objection (if any) are not in the opinion of Secretary of State sufficient the Company shall upon the requisition of the Secretary of State go out of possession of the land in question and the Secretary of State shall be exclusively entitled to possession thereof.

Equipment with Rolling Stock &c.

8. The Company shall with all due speed equip the projected railway and every part thereof with rolling stock plant and machinery to the satisfaction of the Secretary of State and if the Secretary of State shall be of opinion that the Company shall at any time have failed duly to perform its obligations under this section he may himself from time to time equip or complete the equipment of the projected railway or any part thereof with the particulars or any of the particulars specified in this section.

Opening of the Lines for Traffic.

9. The Company shall from time to time when and as often as an inspecting officer acting on behalf of the Secretary of State shall have certified that any part of the projected railway is fit for the conveyance of passengers and goods and properly equipped with rolling stock plant and machinery forthwith open the same part for public traffic.

Telegraphs.

10. The Secretary of State may from time to time construct such electric telegraphs and telegraphic appliances as he shall think fit along or upon the projected railway or any part or parts thereof or any land or works belonging thereto and may maintain and work the same electric telegraphs and telegraphic appliances as he shall think fit and it shall be lawful for him for such purposes or any of them (in addition to the general powers which it is hereby declared that he shall at all times have of entering by agent or otherwise upon all or any land of which he shall pursuant to this contract have allowed the Company to have possession) to enter at all times by his agents workmen or others on any part or parts of the projected railway or the lands or works belonging thereto and to erect maintain make do and execute thereon all such buildings machinery works acts and things as the Secretary of State shall consider necessary or proper in relation to the construction maintenance use and working of the said electric telegraphs and telegraphic appliances The Secretary of State shall be exclusively entitled to the possession of all buildings machinery works and appliances erected or brought by him under the powers conferred on him by this section on the projected railway or on any land or works belonging thereto The Company shall at all times furnish the Secretary of State with such free passes over the projected railways or any parts thereof as he shall require for persons employed by him in or about or in connection with the construction maintenance working or inspection of the electric telegraphs and telegraphic appliances mentioned in this section or any buildings or works appertaining thereto.

11. The Secretary of State shall from time to time allow the Company to have the exclusive use of any such electric telegraphs and telegraphic appliances as he shall from time to time consider proper to be used by the Company for the purpose of safely or efficiently working the projected railway or any part or parts thereof The Secretary of State shall maintain and keep in good repair and in good working condition the electric telegraphs and telegraphic appliances of which he shall for the time being allow the Company the use under this section.

12. The Company if so directed by the Secretary of State shall in working any electric telegraphs or telegraphic appliances to the use of which it shall for the time being be entitled under the

section last hereinbefore contained observe the rules for the time being in force in the case of State Railway Telegraphs or such of the said rules as the Secretary of State may from time to time prescribe to be observed by the Company.

As to the Maintenance and Management of the projected Railway.

13. The Company shall keep the projected railway and the stations and other works belonging thereto in good repair in good working condition and fully supplied with rolling stock plant machinery and stores to the satisfaction of the Secretary of State and whenever the Secretary of State shall be of opinion that the Company is in any default as to any of the matters before mentioned in this section he may in writing notify the fact to the Company specifying in such writing the general nature of the defect and unless the defect be remedied by the Company within one calendar month after the notification thereof by him to the Company may himself remedy it.

14. The Company shall keep the rolling stock machinery and plant for the time being belonging to the projected railway and to every part thereof in good repair and in good working condition to the satisfaction of the Secretary of State.

15. The Company shall maintain a sufficient staff to the satisfaction of the Secretary of State for the purposes of so much of the projected railway as shall for the time being have been opened for public traffic.

16. The Secretary of State may from time to time by notice in writing require the Company to carry out any alteration improvement or addition that may in his opinion be necessary for the safety of passengers or of the public or for the effectual working of the railway to be made in or to any part of the projected railway or any of the stations or works belonging thereto Such notice shall specify the alteration improvement or addition required and shall also in general terms describe the works to be executed for the purpose of effecting the same On receiving any such notice the Company shall with all reasonable speed execute the works described therein The Secretary of State allowing the Company possession of any land that may be requisite for the purposes of such works. If in any case the Company shall neglect to proceed with the works prescribed in any such notice as specified in this section or fail to complete the same to the satisfaction of the Secretary of State the Secretary of State may execute the works in respect of which the Company is in default.

17. The Secretary of State may from time to time prohibit the Company from using any engine carriage waggon vehicle machine or appliance of any description whatsoever of which the use shall be declared by a duly authorized inspecting officer acting on behalf of the Secretary of State to be attended with danger to passengers or to the public and the Secretary of State may by taking possession of such engine carriage waggon vehicle machine or appliance or by such other means as he shall think fit to employ prevent the Company from using the same.

Police.

18. The Secretary of State shall provide and maintain for the purposes of so much of the projected railway as shall for the time being have been opened for public traffic such a force of police as the Company with the approval of the Secretary of State shall from time to time require with the qualification that in case of difference between the Secretary of State and the Company as to the force of police required for the preservation of law and order the determination of the question shall rest with the Secretary of State The cost of providing and maintaining the force of police provided and maintained under this section shall as to three-tenths be borne by the Secretary of State as part of the general expenditure of the Government of India and as to the remaining seven-tenths be treated as part of the working expenses of the projected railway or of the part or parts thereof for the time being opened for public traffic.

As to the use and working of the Projected Railway and the Conveyance of Traffic.

19. The Company shall from and after the opening for public traffic of any part of the projected railway cause to be run so many trains at such times at such rates of speed between such places and with such conveniences and accommodations as the Secretary of State shall from time to time require.

20. The Company shall charge such rates and fares for the carriage of goods and passengers as may from time to time be fixed by the Company with the approval of the Secretary of State Provided that the Secretary of State may require the charges for the conveyance of salt and coal and food grains to be reduced to any rate not below one fifth of a pie per maund per mile for full waggon loads and may also require passengers to be conveyed at any rate not below two pies per mile in closed carriages provided with seats.

21. The Secretary of State may from time to time if he shall think any alteration or improvement in the working of the projected railway or of any part thereof necessary for the safety of passengers or of the public or for the effectual working of the railway require the Company to effect such alteration or improvement.

22. All services which the Secretary of State may require the Company to perform for the Post Office the Military Department the Police Department or any other Department of State or for high Government officials (including in such services the conveyance of mails as defined by the Post Office Act or Acts for the time being in force in India the conveyance of Post Office servants when on duty the conveyance of troops and sailors military and naval establishments horses and other animals used for military purposes guns military stores and equipments the conveyance of police prisoners and paupers the conveyance of telegraph stores instruments officers and workmen and of any public stores whatever) shall be performed by the Company on the same general conditions as may for the time being be in force on State railways of the metre gauge and at such rates as may be approved by the Secretary of State Provided that nothing in this section contained shall be construed to override the provisions contained in section 10 respecting the grant of free passes.

23. The Company shall convey gold and silver bullion and coin and copper coin belonging to the Secretary of State and the persons in charge thereof at special rates to be from time to time approved by the Secretary of State.

24. The Company shall from time to time if so required give precedence to the demands of the Secretary of State whether for freight or passenger accommodation over all ordinary traffic.

25. All stores intended to be used for any purposes of the projected railway or any part thereof (including stores intended to be used in or about the construction of any part of the projected railway or of any works or adjuncts of or pertaining to the same) shall be conveyed by the Company over the projected railway so far as opened for public traffic at rates to be approved by the Secretary of State such rates to be not less than the actual cost of conveyance.

Payments by Company to Government carrying interest at fixed rate.

26. The Company shall within such period and by such instalments as the Secretary of State shall prescribe pay into the Bank of England to the credit of the Secretary of State an aggregate sum of 3,000,000*l.* Provided that the Company may discharge itself in part of its obligations to pay the said aggregate sum of 3,000,000*l.* by paying with the approbation of the Secretary of State any sum or sums of money into any Government Treasury in India approved for the purpose by the Secretary of State and any sum or sums so paid shall be accepted by the Secretary of State as the equivalent of sterling money at the rate of 12 rupees to the pound sterling the Company shall be at liberty from time to time when and as there shall for the time being be any amount carrying interest under the provisions hereinafter contained in favour of the Secretary of State to pay out of its own proper moneys into the Bank of England to the credit of the Secretary of State the equivalent in sterling money (one pound sterling being for this purpose to be treated as the equivalent of 12 rupees) of the whole or any part of such amount All payments made by the Company under this section shall be made out of the proper moneys of the Company not paid or payable by it under any section of this Contract other than the present section into the Bank of England to the credit of the Secretary of State or into any Government Treasury in India All moneys paid by the Company under this section shall belong absolutely to the Secretary of State who shall not be deemed a debtor to the Company in respect thereof.

Payment of interest to Company.

27. The Secretary of State will during the continuance of this Contract out of the revenues of India pay to the Company in India half-yearly on the 1st day of June and 1st day of December the equivalent in rupees at the market rate of the day for bills drawn on London payable on demand of interest at the rate of 3½ per cent. per annum on the amount which shall for the time being have been paid by the Company pursuant to this Contract in respect of the aforesaid sum of 3,000,000*l.* and also half-yearly on the 1st day of June and 1st day of December up to and inclusive of the 1st day of June 1887 (if this Contract shall so long continue) the equivalent in rupees at the market rate previously mentioned in this section of further interest at the rate of ½ per cent. per annum on the amount previously mentioned in this section The Secretary of State shall also during the continuance of this Contract out of the revenues of India pay to the Company in India half-yearly on the 1st day of June and 1st day of December the equivalent in rupees at the market rate previously mentioned in this section of interest at the rate of three per cent. per annum on any amount which for the time being shall under the powers conferred on the Company by the last preceding section have been paid by it into the Bank of England to the credit of the Secretary of State in excess of the sum of 3,000,000*l.*

Payments to Government under special agreement.

28. The Company may from time to time with the approbation of the Secretary of State out of its own proper moneys not paid or payable by the Company into the Bank of England to the credit of the Secretary of State or into any Government Treasury in India under any section of this Contract other than the present section pay into the Bank of England to the credit of the Secretary of State any sum or sums of money All moneys which the Company shall pay to the credit of the Secretary of State under this section shall belong absolutely to the Secretary of State and he shall

not be deemed a debtor to the Company in respect thereof but he shall during the continuance of this Contract out of the revenues of India pay to the Company in India an equivalent for interest on all moneys paid by the Company under this section The rate of the interest for which the equivalent is to be paid under this section and the times at which such equivalent is to be paid shall be agreed between the Secretary of State and the Company and if not otherwise specially agreed the rate shall not in any case exceed 3½ per cent. per annum.

Supply of money by Government.

29. All moneys which the Company shall with the sanction of the Secretary of State require for the purposes of the projected railway whether as regards construction or working shall be supplied to the Company by the Secretary of State according to such arrangements as shall from time to time be made between the Secretary of State and the Company Provided that the Secretary of State shall as and when from time to time the balance standing to the debit of the Capital Account hereinafter mentioned is (inclusive of any balance for the time being standing to the debit of the Stores Account also hereinafter mentioned) not less in amount than the aggregate amount of the moneys which shall for the time being have been paid by the Company under the provisions hereinbefore contained into the Bank of England to the credit of the Secretary of State converted into rupees at the rate of twelve rupees to the pound sterling and of the moneys (if any) which shall pursuant to the 26th section of this Contract for the time being have been paid by the Company into any Government Treasury or Government Treasuries in India in part discharge of the aforesaid sum of 3,000,000*l.* have an absolute right of declining to supply money to the Company to defray expenditure chargeable to Capital Account.

Secretary of State's right to interest.

30. On every occasion on which on the making up of the Capital Account hereinafter mentioned the balance standing to the debit of that account (inclusive of any balance for the time being standing to the debit of the Stores Account also hereinafter mentioned) exceeds the aggregate amount of the moneys which shall for the time being have been paid by the Company under the provisions hereinbefore contained into the Bank of England to the credit of the Secretary of State converted into rupees at the rate of twelve rupees to the pound sterling and of the moneys (if any) which shall pursuant to the 26th section of this Contract for the time being have been paid by the Company into any Government Treasury or Government Treasuries in India in part discharge of the aforesaid sum of 3,000,000*l.* the excess shall carry interest in favour of the Secretary of State at the rate of 4½ per cent. per annum to be computed from the time of the ascertainment of the excess until the Capital Account shall be then next made up.

Receipts of Company.

31. All moneys whatsoever which shall during the continuance of this Contract be received by or on behalf of the Company either in England or in India and whether on its own account or as agent of the Secretary of State or otherwise (excepting the moneys which shall be paid to the Company by the Secretary of State pursuant to this Contract excepting also the moneys which shall be paid by holders of shares in the capital of the Company in respect of their liability to contribute to the assets of the Company in regard to such shares and excepting also the moneys if any which shall be borrowed by the Company with the sanction of the Secretary of State) shall at such times and in such manner as the Secretary of State may from time to time direct be paid without deduction as to moneys received in England by or on behalf the the Company into the Bank of England to the credit of the Secretary of State and as to moneys received in India by or on behalf of the Company into a Government Treasury to be from time to time approved for the purpose by the Secretary of State.

32. Of the moneys mentioned in the last preceding section and not the subject of any exception therein contained such as shall be received by or on behalf of the Company prior to the opening for public traffic of any part of the projected railway shall be treated as received on account of capital such also as shall arise from the sale of any property on any occasion other than the replacement of the property sold by other property of the same or a similar character shall be treated as received on account of capital the residue shall be treated as received on account of revenue.

Accounts.

33. The Company shall keep the following accounts

(1.) A Capital Account
(2.) A Revenue Account
(3.) A Stores Account

And all such other accounts relating to the projected railway and also all such accounts as between the Company and the Secretary of State as the Secretary of State shall from time to time require and if the Secretary of State shall so require separate accounts shall be kept by the Company in respect of different sections of the projected railway The said accounts shall be kept in such form and under such heads or divisions and with such details as the Secretary of State shall from time to

time prescribe The said accounts so far as the same are kept in India shall be kept in rupees of the Government of India and so far as they are kept in England shall be kept in sterling money Such of the said accounts as are kept in England shall from time to time be transmitted by the Secretary of State to the Government in India and incorporated in the accounts of the Company in India each account transmitted being for the purpose of such incorporation converted into rupees at the average rate of exchange obtained by the Secretary of State for bills payable on demand drawn on India during the half year immediately preceding that in which the incorporation is to be effected or if the Secretary of State shall not have drawn bills on India for so much as three months out of the half year immediately preceding then at the average rate obtained during the half year immediately preceding that in which the incorporation is to be effected for the best commercial bills payable on demand drawn in London on India such average rate to be decided by the Comptroller General at Calcutta.

34. In the Capital Account the following particulars shall be entered to debit and credit respectively that is to say To debit:—

(*a*) All expenditure by the Company in relation to this Contract which ought as between the Secretary of State and the Company to be treated as on account of capital including such sum as the Secretary of State may allow to be charged in respect of the expenses of and incident to the formation incorporation and management of the Company.

(*b*) The cost to the Secretary of State as certified by him of all land of which he shall allow the Company to have possession for any purposes of this Contract.

(*c*) The cost to the Secretary of State as certified by him of the said surveys and plans mentioned in the 6th section of this Contract and of any such designs and estimates as the Secretary of State may furnish to the Company under section 3 of this Contract including in the cost of the said surveys and plans all costs incurred by the Secretary of State with a view to procuring the same to be made Also the fair present value as estimated by the Secretary of State of the works mentioned in the 6th section of this Contract.

(*d*) The charges of the Government Telegraph Department for rent maintenance and inspection of such electric telegraphs and telegraphic appliances (if any) as the Secretary of State may allow the Company to use in relation to the construction of the projected railway or any part thereof.

(*e*) So much as ought pursuant to this Contract from time to time to be charged to capital in respect of the half-yearly amount to be charged by the Secretary of State under his power in that behalf hereinafter mentioned for his supervision and control of the Company.

(*f*) Any amount which the Secretary of State may from time to time require to be entered in the Capital Account in respect of the cost to him of such of his legal expenses incurred in relation to this Contract or to matters arising out of this Contract as he shall determine to be chargeable to capital.

(*g*) The cost to the Secretary of State as certified by him of all works acts and things which shall be executed or done by him under any of the provisions of this Contract provided that the cost thereof if executed or done by the Company would have been expenditure on account of capital.

And to credit:—

(*h*) The value (to be determined by the Secretary of State) of any land of which possession shall have been allowed by the Secretary of State to the Company for the purposes of this Contract and which shall subsequently be relinquished to the Secretary of State under section 7 hereinbefore contained.

(*i*) All such of the moneys to be received by or on behalf of the Company as are herein provided to be treated as received on account of capital.

35. The Capital Account shall from time to time as the Secretary of State shall require be made up and the balance thereon ascertained and stated therein The Secretary of State may from time to time audit the Capital Account and correct errors therein as he shall see fit.

36. The Revenue Account shall contain an account of all such of the moneys to be received by or on behalf of the Company as are herein provided to be treated as received on account of revenue and of all expenditure which ought conformably with this Contract to be treated as on account of revenue The Revenue Account shall be made up half yearly to the 30th of June and the 31st of December in each year or to such other days as the Secretary of State may from time to time prescribe and shall be regularly submitted by the Company to the Secretary of State who may audit the same either concurrently with or after expenditure or in both ways as he may think fit and may in case of error being discovered therein correct the same within three calendar months after the account containing such error shall have been submitted to him Every Revenue Account shall be considered as settled at the expiration of three calendar months after the same shall have been submitted to the Secretary of State but nevertheless any error which may subsequently be discovered therein shall be corrected in the then next Revenue Account or in any subsequent Revenue Account or Accounts as the Secretary of State may determine.

37. As soon as possible after the 30th of June and the 31st of December in each year or the respective half-yearly days which the Secretary of State may from time to time prescribe for the making up of the Revenue Account the Company shall make up and deliver to the Secretary of State an account of all stores in hand on the half-yearly day immediately preceding the making up of the account now being directed and of all stores which the Company shall for the purposes

of fulfilling this Contract have used since as regards the first occasion of making up an account of stores the date of this Contract and since as regards each other occasion of making up an account of stores the date to which the Stores Account was last previously made up showing the purposes for which such stores have been used As often as any of the stores in hand shall be used by the Company for the purposes of fulfilling this Contract the value of the stores so used as entered in the books of the Company shall be entered in the Capital Account or in the Revenue Account as may be proper The Stores Account shall besides being made up periodically as above mentioned be made up and balanced from time to time upon the requisition of the Secretary of State.

38. The stores in hand shall be valued at such time or times as the Secretary of State shall direct and in such manner as shall from time to time be agreed upon by the Secretary of State and the Company and the value of the stores in hand as entered in the books of the Company shall be corrected in accordance with such valuation and all necessary adjustments shall be thereupon made by making entries to debit or credit in the Revenue Account as may be proper.

Appropriation of Expenditure.

39. In any case where any question may or might arise as to whether any expenditure incurred in relation to the projected railway or otherwise is to be treated in the whole or in part as a charge on Capital Account or how the same is to be dealt with the question shall be determined on the general principle that capital is to bear the cost of new works of additional rolling stock plant and machinery and of improvements of and additions to old works rolling stock plant and machinery including the cost of any temporary new work the construction of which is requisite for the construction of a work properly chargeable to capital and that the cost of repairs restorations renewals replacements and substitutions is to be borne by revenue except in cases where repairs restorations renewals replacements or substitutions are effected prior to the opening for public traffic of the portion of the projected railway upon or in respect of which the same are effected in which case the cost thereof is to be chargeable to capital Provided always that any item of expenditure incurred in respect to any part which shall have been opened for public traffic of the projected railway (although under the terms in this section before contained in strictness chargeable to capital) shall from time to time if not exceeding the sum of 1,000 rupees and may from time to time at the absolute discretion of the Secretary of State if exceeding 1,000 rupees but not exceeding 2,000 rupees (but so that the aggregate expenditure charged to revenue on account of such last-mentioned items shall not exceed 15,000 rupees in any half-year) be charged to revenue Provided also that after the opening throughout for public traffic of all the four several lines of railway specified in the 3rd section of this Contract no portion of the salaries or allowances of any of the Company's permanent supervising staff although for the time being employed partly or wholly in directing or superintending work the expenditure on which is properly chargeable to capital shall except with the express sanction of the Secretary of State be treated as chargeable to capital and also that after the opening throughout for public traffic of the whole of the four several lines of railway last aforesaid no expenses connected with the engagement from England or with the passage from or to England of any person in the Company's service shall be treated as chargeable to capital unless such person shall be specially engaged to carry out work the cost of which is expenditure so chargeable and shall be actually employed upon such work Nevertheless the cost of construction of any of the lines mentioned in the 48th section of this Contract shall be borne by capital to the same extent and in the same manner as if the proviso last hereinbefore contained had not been inserted in this Contract.

40. If any difference shall arise between the Secretary of State and the Company as to whether expenditure shall in any particular case be charged to capital or charged to revenue the matter in difference shall unless according to the terms of the section last hereinbefore contained to be solely decided or determined by the Secretary of State be referred to the decision of the Joint Auditor if the Secretary of State and the Company shall have appointed such an officer but in case a Joint Auditor shall not have been appointed then the matter in difference shall be referred for final decision to the Company's Auditor or some other person to be named by the Company and a Government Examiner of Railway Accounts or some other person to be named by the Secretary of State or to an umpire to be named by the referees acting on behalf of the Company and the Secretary of State respectively in case of difference between such referees The costs of any reference under this section shall unless the Secretary of State shall otherwise direct be treated as working expenses.

Working Expenses.

41. All costs and expenses incurred by the Company with the sanction of the Secretary of State in or about or in connection with the maintenance management and working of the projected railway so as the expenditure be not incurred prior to the opening of some part thereof for public traffic shall be deemed working expenses All working expenses shall be chargeable to revenue.

In the working expenses there shall be included :—

(1.) Such sum or sums of money as shall from time to time be agreed upon between the Secretary of State and the Company as proper to be allowed in respect of the rent of the Company's office in London office expenses Directors' fees and salaries of clerks and servants except so much (if any) of the sum or sums mentioned in this sub-section as the Secretary of State shall especially determine to be chargeable to capital.

(2.) The costs of and incidental to the preparation of the returns and statistics mentioned in the 58th section of this Contract.

(3.) So much of the cost of providing and maintaining a police force agreeably to this Contract as is not under the terms of this Contract to be borne by the Secretary of State as part of the general expenditure of the Government of India.

(4.) All expenditure incurred by the Company with the sanction of the Secretary of State or by the Secretary of State in keeping so much of the projected railway as shall have been opened for public traffic and the stations and other works belonging thereto in good repair and in good working condition and supplied with rolling stock machinery and plant except such part if any of the expenditure mentioned in this sub-section as shall be properly treated as chargeable to capital.

(5.) All expenditure incurred by the Company with the sanction of the Secretary of State or by the Secretary of State in keeping the rolling stock machinery and plant belonging to so much of the projected railway as shall have been opened for public traffic in good repair and in good working condition.

(6.) All expenditure incurred by the Company with the sanction of the Secretary of State or by the Secretary of State in the execution of any works of which the cost shall be chargeable to revenue.

(7.) So much as ought pursuant to this Contract from time to time to be charged to revenue in respect of the half-yearly amounts to be charged by the Secretary of State under his power in that behalf hereinafter mentioned for his supervision and control of the Company.

(8.) The charges of the Government Telegraph Department for rent maintenance and inspection of the telegraphs and telegraphic appliances from time to time provided under the 11th section of this Contract for the use of the Company.

(9.) All reasonable legal expenses whether incurred by the Secretary of State or by the Company and all such other expenses as the Secretary of State shall require or allow to be treated as working expenses.

As to the Application of Receipts.

42. Of the moneys to be received by or on behalf of the Company in each half-year during the continuance of this Contract such as are pursuant to this Contract to be treated as received on account of revenue shall be applied in the first place in or towards the discharge of expenditure attributable to revenue as follows (that is to say):—

(1.) Primarily in or towards the discharge of expenditure attributable to the half-year to which the receipts relate and

(2.) Secondarily, in or towards the discharge of expenditure attributable to any previous half-year or half-years and not already discharged out of receipts on account of revenue and

(3.) In the next place in payment to the Secretary of State so far as the same will extend of the interest accrued in his favour under the provisions hereinbefore contained and not previously paid to him and

(4.) In the next place in payment of such sum as shall from time to time be payable by the Company to or for the purposes of any provident institution which shall be established by the Company in connection with the projected railway and

(5.) The surplus if any shall be dealt with as follows (that is to say) up to the 30th day of June 1887 shall belong absolutely to the Secretary of State and as from that day shall be divided between the Secretary of State and the Company in the proportion of three-fourths to the former and one-fourth to the latter and the one-fourth belonging to the Company shall be paid over to the Company in India

Provided that if one equal fourth part of the surplus attributable to any half-year prior to or ending with the 30th day of June 1887 shall exceed one-eighth part of the aggregate equivalent of interest paid under the provisions hereinbefore contained by the Secretary of State to the Company in the same half-year in respect of so much of the aforesaid sum of 3,000,000*l.* as shall then have been paid by the Company pursuant to this Contract then and so often as the same shall happen the Company shall be entitled to the amount of the excess and the Secretary of State shall pay the same amount to the Company in India.

As to Running Powers and other Facilities and Accommodation for other Railway Companies and State Railways.

43. The Secretary of State may from time to time require the Company to allow the use of the projected railway or any part or parts thereof for the passage of engines and trains belonging to other Railway Companies or to State Railways upon the payment of reasonable tolls and under reasonable conditions and restrictions.

44. The Secretary of State may from time to time require the Company to supply other Railway Companies or State Railways upon reasonable terms and conditions with any of the rolling stock appropriated or belonging to the projected railway or any part or parts thereof provided such rolling stock shall not for the time being be required for the purposes of any part of the projected railway.

45. The Secretary of State may from time to time require the Company to execute work in its workshops in respect of rolling stock and machinery belonging to State Railways at such reasonable prices and upon such terms as shall be agreed upon between the Secretary of State and the Company but so nevertheless as not to impede or unduly interfere with the ordinary operations of the Company as carried on therein.

46. The Secretary of State may from time to time require the Company to make reasonable arrangements for the interchange of traffic and rolling stock with railways belonging to other Companies or to the State.

47. The Secretary of State may from time to time require the Company to allow the use of any of the stations belonging to the projected railway for the accommodation of the traffic of any other Railway Company or State Railway upon the payment of reasonable tolls and under reasonable conditions and restrictions and may also require the Company to make such alterations and additions as may in the opinion of the Secretary of State be necessary or convenient for the purposes of such accommodation upon such terms as may be agreed upon between the Secretary of State and the Company.

As to the Construction of Extensions.

48. The Secretary of State may at any time or times during the continuance of this Contract unless and until he shall under the provisions hereinafter contained have given notice to the Company of the determination by him of this Contract require the Company to construct all or any of the following lines of railway that is to say

(1.) An extension from Belgaum to join the Great Indian Peninsula Railway at or east of Poonah.
(2.) A branch to Karwar.
(3.) A branch to Hurrihar.

And as from the time when and as often as the Secretary of State shall under this section have required the Company to construct any of the lines of railway last aforesaid the Company shall in addition to its other obligations and liabilities be under all such obligations and liabilities as it would have been subject to under this Contract if the line or lines of railway under this section required to be constructed had by the 3rd section of this Contract been porvided to be constructed in addition to the lines of railway in such section specified And all the provisions of the 3rd section of this Contract shall apply *mutatis mutandis* in respect of any line or lines of railway which shall under this section be required to be constructed Provided that if the Secretary of State shall require the Company to construct a branch to Karwar the Company shall have the benefit of an existing survey made on behalf of the Secretary of State of a line of railway from Karwar to Hubli Provided also that if and as often as the Secretary of State shall at the time when he shall require the Company to construct any extension or branch mentioned in this section have caused any surveys or plans to be made (other than the surveys before mentioned in this section) or works to be executed with the view of facilitating or expediting the construction of the same extension or branch he shall allow the Company to have the benefit of the same surveys plans and works respectively and upon the Company becoming entitled under this section to the benefit of the existing survey in this section mentioned or of any other surveys or any plans or works the cost to the Secretary of State (as certified by him) of the survey or surveys plans or works to the benefit whereof the Company shall from time to time become entitled under the provisions of this section (including as regards all surveys and plans the cost to the Secretary of State of procuring the same to be made) shall be entered to the debit of the Capital Account.

Construction Acquisition and Working of Auxiliary or Branch Railways.

49. The Secretary of State may require the Company on such terms and conditions as shall be agreed upon between himself and the Company in each case to construct or acquire either absolutely or on lease for a term of years or otherwise any railway on the metre gauge convenient to be worked as auxiliary to or in connection with the projected railway or any part of it and to work on such terms and conditions as may in each case be agreed upon between the Secretary of State and the Company any railway so constructed or acquired as mentioned in this section or any other railway on the metre gauge convenient to be worked as auxiliary to or in connection with the the projected railway or any part of it.

The Company to comply with the requirements of the Secretary of State.

50. The Company shall with all reasonable speed comply with all such requirements as the Secretary of State shall from time to time make in accordance with this Contract.

As to the Supervision and Control of the Secretary of State and the appointment of a Government Director.

51. In all matters not herein specially provided for relating to the fulfilment and performance by the Company of this Contract so far as to be fulfilled or performed by the Company the Company shall be subject to the supervision and control of the Secretary of State The Secretary of State

shall be entitled to make a charge half-yearly for his supervision and control of the Company Th said half-yearly charge shall be a mileage rate of 40 rupees for every mile of the projected railway so far as the time being either constructed or under construction The half-yearly charge to be made by the Secretary of State under this section shall be charged to capital so far as made prior to the opening for public traffic of any part of the projected railway and as from the time when any part of the projected railway shall have been opened for public traffic until the whole thereof shall have been so opened the half-yearly charge under this section shall from time to time be apportioned between revenue and capital in such manner as that so much of the half-yearly charge as bears the same proportion to the entirety thereof as the length of railway opened for public traffic at the time when the half-yearly charge is made bears to the whole length of railway on which the same charge is to be calculated shall be charged to revenue and that the residue thereof shall be charged to capital As from the time when the whole of the projected railway shall have been opened for public traffic the half-yearly charge to be made by the Secretary of State under this section shall be charged to revenue exclusively.

52. For the purpose of inspecting the railways and works to be executed by the Company under this Contract either whilst under construction or subsequently and of inspecting the projected railway and the stations and other works rolling stock plant machinery and stores to belong thereto and the electric telegraphs and telegraphic appliances for the time being provided under this Contract for the use of the Company and for the purpose of auditing the accounts of the Company or otherwise exercising such supervision and control as are intended to be reserved to the Secretary of State by this Contract the Secretary of State may from time to time appoint such person or persons as he may think proper with such powers as he may consider necessary or expedient and the Company shall afford every person so appointed all reasonable facilities for the purpose of enabling him to perform the duties entrusted to him by the Secretary of State.

53. The Company shall record and keep in proper books full and particular accounts of all its transactions and proceedings including full and true minutes of all its meetings meetings of Directors communications with India and correspondence so as at all times to exhibit fully and truly the state of its affairs and the Secretary of State or any person or persons appointed by him in that behalf shall at all reasonable times have free access to all the books accounts papers and documents of the Company with power to call for and make copies of or extracts from the same.

54. The Secretary of State may from time to time appoint any one person to be a Director of the Company The Government Director shall be ex-officio a member of all Committees appointed by the Board of Directors of the Company or by the Company in relation to the projected railway or any matter connected therewith and he may moreover exercise at his discretion an absolute veto in all proceedings whatever at the Board of Directors The Government Director shall not be removable except by the Secretary of State The Secretary of State may from time to time as often as occasion shall require appoint a person to represent the Government Director at any meeting of the Board of Directors or at any Committee meeting at which the Government Director may not be present and the person so appointed shall have all such rights and may exercise all such powers as the Government Director if present would have had or might have exercised.

Miscellaneous Provisions.

55. The Company shall not during the continuance of this Contract without the sanction of the Secretary of State in writing first obtained engage in or carry on any business other than the business provided by this Contract to be carried on by the Company or borrow any money or increase or reduce its capital.

56. The Company shall not during the continuance of this Contract alter vary or add to its Articles of Association without the sanction of the Secretary of State.

57. The Company shall not during the continuance of this Contract without the sanction of the Secretary of State in writing first obtained acquire any property in India If the Company shall in contravention of this section acquire any property such property shall not be disposed of by the Company without the sanction in writing of the Secretary of State and the Secretary of State may at any time during the continuance of this Contract or within one calendar month after the determination thereof purchase such property from the Company at the price actually paid by the Company for the same and if the purchase money shall be paid to the Company during the continuance of this Contract the expenditure shall be carried to Capital Account.

58. The Company shall from time to time make such returns and furnish such statistics in such form and under such heads and divisions and with such details as the Secretary of State may from time to time require The cost of preparing such returns and statistics and incidental thereto shall be treated as part of the working expenses of the projected railway.

59. The Secretary of State shall promote the passing by the Legislature of India of any Act or Acts which may be required to enable the Company to carry into effect this Contract.

60. No claim shall be made upon the Secretary of State for the Company for compensation in respect of any act of the Indian Legislature of general applicability by reason of its prejudicially affecting the projected railway or the profits thereof.

61. The Company may if it shall think it expedient and shall if required by the Secretary of State at any time after the opening for public traffic of any part of the projected railway maintain and manage a Provident Institution and a Savings Bank for the benefit of the servants of the Company upon such terms and under such rules and regulations as shall from time to time be approved by the Secretary of State.

62. The Secretary of State may at any time after the whole of the four several lines of railway specified in the 3rd section of this Contract shall have been opened throughout for public traffic require the Company to establish and maintain out of contributions from revenue and on terms to be agreed upon between the Secretary of State and the Company Reserve Funds for the purposes of insuring property whether appropriated to the projected railway or in the custody of the Company as common carriers or in any other capacity against damage by fire and of making good deteriorations of permanent way and rolling stock.

63. Any notice determination decision direction requirement requisition appointment certificate or expression of opinion approval or sanction to be given or signified on the part of the Secretary of State for any of the purposes of or in relation to this Contract or any of the powers or provisions herein contained shall be sufficient and binding if in writing signed by the Secretary of State or one of his Under Secretaries or by a Secretary of the Government of Bombay or by any other officer or servant authorized to act on behalf of the Secretary of State in respect of the matters to which the same shall relate and the Secretary of State shall not in any case be bound in respect of any of the matters aforesaid unless by some writing signed in the manner before mentioned in this section.

64. The Company shall at all times during the continuance of this Contract keep an office established at some place in India to be determined from time to time by the Secretary of State and shall keep at the said office an authorized Agent or Committee of Agency with whom the Secretary of State and the Government of India or other officer or officers deputed in that behalf may communicate on affairs concerning this Contract and the duties and liabilities of the parties hereto under this Contract and all drafts drawn and receipts given by the said Agent or Committee of Agency or under his or their authority on behalf of the Company in relation to this Contract or any of the duties or liabilities of the Company under this Contract shall be binding on the Company and every notice to be given to the Company (save any notice with respect to the determination of this Contract as hereinafter provided) shall be sufficiently given if left at the said office or personally served on the said Agent or any member of the said Committee of Agency.

As to the Termination and Expiration of the Contract and Repayments to Company.

65. The Secretary of State may determine this Contract either on the 30th of June 1907 the 30th of June 1917 or the 30th of June 1927 on giving to the Company in London not less than twelve calendar months' previous notice in writing of such determination The Secretary of State may also if default shall be made by the Company in duly paying the aforesaid sum of 3,000,000*l.* or any instalment thereof pursuant to this Contract or in the Construction and completion in conformity with this Contract of the projected railway or any part thereof and the stations and other works thereof or in the due equipment pursuant to this Contract of the projected railway or any part thereof with rolling stock machinery or plant or in case there shall be any breach on the part of the Company of any of the provisions of this Contract or in case at any time after the whole of the four lines of railway specified in the 3rd section of this Contract shall have been opened throughout for public traffic the projected railway or any part thereof shall in the opinion of the Secretary of State be in course of gross mismanagement by the Company or be worked at a loss and have been so worked for not less than three half years continuously up to the time of the exercise by the Secretary of State of the powers now being conferred on him determine this Contract by giving to the Company in London six calendar months' previous notice in writing of such determination The Company may determine this Contract on the 30th of June 1888 or on the 30th of June in any subsequent year on giving to the Secretary of State not less than twelve calendar months' previous notice in writing Upon the day on which this Contract shall expire by efflux of time or terminate under any notice given by the Secretary of State or by the Company under this section the Company shall deliver to the Secretary of State possession of all land of which he shall have allowed the Company possession under or for the purposes of this Contract (except only such lands as may previously have been already redelivered to him or sold with his sanction) together with the stations station yards offices warehouses houses for employés conveniences rails machinery fixtures and plant then erected or being on the land to be delivered up under this section or in anywise belonging to the projected railway or any part thereof and also deliver to the Secretary of State possession of any office in England of the Company and deliver to the Secretary of State all rolling stock moveable machinery and plant belonging or appropriated either as regards purposes of construction or working or otherwise to the projected railway or any part thereof or any of the works or adjuncts thereof and all stores in hand or in course of delivery on that day and all plans books surveys sections printings writings and documents whatsoever in anywise connected with or with the construction of the projected railway or any part thereof or any of the works or adjuncts thereof and any electric telegraphs telegraphic appliances and other

property belonging to the Secretary of State and then in the possession of the Company in reference to this Contract including all furniture and tenants' fixtures appropriated to the office in England of the Company. The Company will also on the day on which this Contract shall so expire or terminate as last above mentioned refund to the Secretary of State any money belonging to the Secretary of State which shall then be under the control or in the hands of the Company or any of its officials or agents and the Secretary of State shall be bound to indemnify the Company its property and effects against all such then existing debts and liabilities (if any) incurred by the Company with the sanction of the Secretary of State in relation to this Contract as would but for the expiration or termination of this Contract have had under this Contract to be fulfilled or discharged by the Company at cost which would under this Contract have been properly charged to capital or revenue The Company if required by the Secretary of State shall at any time after possession of any office in London of the Company shall have been under this section delivered to the Secretary of State execute at the cost of the Secretary of State to any person nominated in that behalf by him a proper assignment or assurance of the office last aforesaid.

66. The termination of this Contract under the section last hereinbefore contained whether the notice under which the same shall terminate shall have been given by the Secretary of State or by the Company shall be without prejudice to the rights of either party against the other in respect of any covenant herein contained which may have been broken previously to the termination of this Contract.

67. All land of which the Secretary of State shall allow the Company to have possession for any of the purposes of this Contract and everything to be constructed thereon and all rails plant machinery rolling stock stores fixtures and implements of every description acquired by the Company for the purpose of constructing maintaining equipping keeping up the equipment of or working the projected railway or any part thereof or any stations station-yards offices warehouses houses for employés or works upon any land of which the Secretary of State shall so allow the Company to have possession as aforesaid or for any other purposes of the projected railway are hereby declared to be respectively the property of the Secretary of State The Company shall not be entitled to any remuneration from the Secretary of State in respect of its services under this Contract.

68. At the expiration of this Contract by efflux of time unless this Contract shall have previously been determined under the provisions herein contained or if this Contract shall be so previously determined then upon the day appointed for termination of this Contract by the notice which shall determine the same the Secretary of State shall at his option out of the revenues of India either pay to the Company in London an amount equal to the amount which shall then have been paid by the Company conformably with this Contract in respect of the said sum of 3,000,000*l.* and also an amount equal to the aggregate of any such sum or sums of money (other than in respect of the said sum of 3,000,000*l.* or any part or parts thereof) as shall have been paid by the Company into the Bank of England to the credit of the Secretary of State under the 26th and 28th sections of this Contract or under either of such sections or out of the revenues aforesaid pay to the Company in India the equivalent in rupees at the market rate of the day for bills drawn on London payable on demand of the aggregate of the amounts which if the Secretary of State had exercised his option under this section of making payment in London would under this section have been payable by him to the Company in London.

Arbitration.

69. If any dispute question or controversy shall at any time arise between the Secretary of State and the Company touching this Contract or any clause or thing herein contained or the construction hereof or any matter connected with this Contract or the operation of the same or the rights duties or liabilities of either party in relation to the premises then and in every such case the matter in difference shall be referred to two Arbitrators or their Umpire pursuant to and so as with regard to the mode and consequences of the reference and in all other respects to conform to the provisions in that behalf contained in the Common Law Procedure Act 1854 or any subsisting statutory modification thereof and upon every such reference the Arbitrators and Umpire shall respectively have power to examine witnesses upon oath or affirmation and either to fix settle and determine the amount of costs of the reference and award respectively or incidental thereto to be paid by both parties or by either party or to direct the same to be taxed either as between solicitor and client or otherwise and to direct and award where and by and to whom such costs shall be paid and every or any such reference may be made a rule of Her Majesty's High Court of Justice or of the High Court of Judicature at Bombay on the application of the Secretary of State or of the Company and either the Secretary of State or the Company may instruct counsel to consent thereto for the other party.

Appendix II.

Railway Despatch to the Government of India, No. 86 of 1882.

To His Excellency The Most Honourable the Governor General of India in Council.

India Office,
London, 22nd June 1882.

My Lord Marquis,

Para. 1. In continuation of former correspondence, ending with your Railway Letter, No. 116, of 1st October 1881, I have now to inform your Excellency that an arrangement has been made for the formation of a Company to construct and work a system of railways in the South Mahratta Country, in connection with the Marmagao Railway under the Portuguese Government.

2. A copy of the contract which embodies this arrangement, and of the correspondence* which has passed on the subject with the promoters of the Company, is enclosed. My telegram of the 31st March will have informed you of the general terms of the agreement which, as was stated in my telegram of the 17th April, has been accepted as the basis of a contract with the projected Company.

* Letter from Sir Douglas Forsyth, dated 16th March 1882, and enclosure.
Ditto, ditto, dated 28th March 1882.
Ditto to ditto, dated 19th May 1882.
Ditto from ditto, dated 19th May 1882, and enclosure.

3. The form which has been given to this agreement was a consequence of the peculiar circumstances under which it was entered into. The engagement with the Portuguese Government to connect the Marmagao Railway with the system of railways in British territory within a limited time, and the strongly expressed opinion of the Government of your Excellency and of Bombay, that the South Mahratta districts urgently required the protection of railways against the results of possible future droughts to which they are exceptionally liable, led me to the conclusion that the early construction of these lines of railway was an unavoidable necessity.

4. The question then arose, what administrative and financial arrangements were best calculated to secure the speedy and economical prosecution of the railways in question, and their satisfactory working when completed. It was a recognized condition of the case that the lines, taken as a whole, were not of such a character as to justify their being treated as Productive Works, or being carried out under existing rules with money borrowed for the purpose. Your Excellency's Government had suggested that they might be entrusted to a Company working under a guarantee for a limited number of years on a capital limited in amount.

5. I explained in my Financial Despatch, No. 365, dated 8th December 1881, para. 13, my general reasons for thinking that this course was not admissible, and in the actual circumstances of the lines in question the evils of the guarantee system which I pointed out would have been likely to operate with special force. The small prospect of surplus profits in excess of the rate of interest guaranteed would have reduced to a minimum the inducements to economy whether in construction or in working, and the probabilities of the future would have been increased liabilities rather than an extinction or reduction of the burden of guarantee.

6. Concurring, however, with your Excellency, that there would be advantages in making use of the agency of a Company on this occasion, I was led to entertain the proposal which, after the receipt of your telegram of the 1st April, offering no objection to my so doing, has been made the basis of the contract now forwarded to you.

7. The essential features of this contract are, 1st, that the Company shall at the outset raise, in such instalments as may be determined on, and pay to the Secretary of State, the sum of three millions sterling, the estimated amount likely to be required for the construction of the 450 miles of railway first to be constructed, on which they shall receive interest at the rate of $3\frac{1}{2}$ per cent., paid by an equivalent amount of rupees in India; 2nd, that they shall construct and work the proposed railways as agents for the Government, the Government supplying the funds for construction to the extent of 360 lacs of rupees, and the railways being the property of the State; 3rd, that they shall receive one fourth part of the net receipts of the railway, the Government taking the remaining three fourths; 4th, that for five years from the date of the contract the Company shall be paid, in addition to the $3\frac{1}{2}$ per cent. interest, such an amount as will, together with their share of the profits, make a further $\frac{1}{2}$ per cent. on the three millions; 5th, that if a larger sum than 360 lacs is required for construction, including the outlay on the contemplated extensions in excess of the 450 miles first to be undertaken, the Company may make corresponding payments to the Secretary of State in addition to the three millions, the terms to be settled as the occasion arises, but on the condition that, if money is advanced by the Government in excess of the equivalent of the three millions with any such additions, reckoning Rs. 12 for 1*l.* sterling, the Government shall be paid interest on the excess at $4\frac{1}{2}$ per cent. from the revenue, before the net receipts are declared; 6th, the contract to be for 50 years, but the Government to have the power of terminating it after the 25th year, or at subsequent intervals of 10 years, or for breach of contract or mismanagement, and the Company to have the right to withdraw at any time, on giving one year's notice, after the end of the fifth year; 7th, on the termination of the contract the Secretary of State shall repay to the Company the three millions, together with any sums subsequently paid to him by them.

8. The ultimate position of the Company in relation to the projected railways will thus be generally analogous to that of the East Indian Railway in relation to the line worked by them.

The railways will be the exclusive property of the State, the Company receiving a certain share of the net profits, and holding besides a State security. The Company will also carry on its business under the control of the Government.

9. The lines of railway first to be completed are those named by your Government:—

1. From the Portuguese frontier to Bellary.
2. From Gadak to Sholapur.
3. A branch to Bankapur.
4. A branch to Belgaum.

10. These measure in all about 450 miles, and their cost may be approximately taken at 360 lacs. Besides these, provision is made for requiring the Company to undertake,—

1. A line from Hubli to Karwar.
2. A branch to Haribar.
3. A line to some place on the Great Indian Peninsula Railway near Poona.

11. For these, further payments may be required from the Company in addition to the three millions, but the terms are to be left for settlement till the occasion arises.

12. After careful consideration of how best to protect the financial interests of the State in connection with this contract, I came to the conclusion that it would be preferable to allow the Company a small share of all net receipts, rather than to give them a larger share of a surplus in excess of some minimum up to which the Government would take the whole, as under the old system of guarantee. As at present arranged, the Company will have a strong interest in the early completion and in the economical construction and working of the lines from the outset. At the same same time the capital outlay will be entirely under the control of the Government.

13. To meet the wishes of your Government I have arranged that a sum equivalent to 500,000*l.* shall be offered for subscription in India, the remaining 2,500,000*l.* being raised in London. A sum of 750,000*l.* will be called up at once as a deposit, and permission has been given to allow a further sum of 750,000*l.* to be called up by the 30th June in anticipation of calls.

14. You will be separately addressed in the Financial Department on the subject of the system to be followed in dealing with the public accounts with the money transactions arising under this contract, but there are some matters to which it will be convenient if I now direct your Excellency's attention. It is intended that all the expenditure, including that on surveys and land which has been incurred by your Government for the lines of railway to be undertaken by the Company, shall be debited to the Capital Account of the railways, due consideration being given, in determining the value of work handed over, to any deterioration that may have arisen, and proper allowance being made for excessive outlay due to the circumstances of providing famine relief or otherwise.

15. Clauses 26, 27, and 28 explain the conditions under which the Company will pay to the Secretary of State the capital sums which are to be provided by them. Clause 29 states the terms under which the Secretary of State engages to supply funds to the Company. Clause 30 declares that the Secretary of State shall be entitled to interest on any sum advanced by him in excess of the equivalent of the capital sums provided by the Company. The three millions first paid up by the Company will carry interest at 3½ per cent. during the whole period of the contract, such interest being paid by a rupee equivalent in India. On this sum also an additional half per cent., including however any share of profits due to the Company, will be paid for five years in rupees in India.

16. It may here be explained, with reference to the option given to the Company under Clause 27 to pay in further sums in excess of the three millions, if required for construction purposes, carrying 3 per cent. interest, that it is not the intention that the Company should adopt this course except in the improbable event of failure to agree as to terms for further capital under Clause 28, and then only at their own option in order to avoid the high interest payable to the Secretary of State under Clause 30. It will also be noted that under Clause 28 the Secretary of State has guarded against claims based on unreasonable expectations on the part of the Company, by limiting the rate of interest which he may grant in the event of no special agreement being come to as to raising further capital, viz., to 3½ per cent.

17. The Government will only be bound to advance money to the Company to the extent of the capital payments converted at the rate of Rs 12 to 1*l.* sterling, and the Government will be entitled to 4½ per cent. interest on any excess advance, the advance for this purpose being held to be the sums standing to the debit of the Capital Account and Store Account taken together.

18. This arrangement, which excludes from consideration for the above purpose any other advances of cash, will render it essential for the proper protection of the interests of the Government that all needful entries in the Capital Account shall be promptly made, and that the Construction Account shall not be permitted to fall into arrear, or suspense entries allowed to accumulate.

19. In regard to Clause 38, it may be noted that the distinct provisions therein made for adjustments of the Store Account by making entries to debit or credit in the Revenue Account cannot

come into force until there is a Revenue Account, and even then there may be cases in which you would desire to exercise discretion in permitting adjustments in the Capital Account.

20. In Clause 39 the agreement come to with the East Indian Railway Company as to substantial improvements, &c., has been embodied.

21. It will doubtless be in accordance with the wishes of your Excellency that the provisions of this contract shall be carried out under the direction of the Government of Bombay, to which Government your Excellency should therefore convey all further needful instructions as to the officers to be employed for the supervision of the Company's operations, the station to be selected for the chief office of the Company, and other matters that will call for settlement in detail.

22. It is also desirable that all needful facilities should be given to the Company for obtaining by transfer, either permanently or temporarily, as the case may require, and, should they so desire, the services of any of the staff now employed on the railways to be taken up by them. Needful steps should also be taken for the early transfer to the Company of the contract lately entered into with Messrs. Thompson & Co. for the line from the frontier to New Hubli, and for relieving the Government of its obligations in respect to it.

23. I take this opportunity of acknowledging receipt of your Excellency's Railway Letter, No. 32, dated Simla, 18th April 1882, forwarding copy of Minute by Sir James Fergusson, dated 29th November 1881, which I have read with interest.

24. A copy of this Despatch will be sent to the Government of Bombay.

I have, &c.,
(Signed) HARTINGTON.

LONDON:
Printed by GEORGE E. B. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.

REPORT

TO

THE SECRETARY OF STATE FOR INDIA IN COUNCIL

ON

RAILWAYS IN INDIA,

FOR THE YEAR

1882-83.

BY COLONEL F. S. STANTON, R.E.,

DIRECTOR GENERAL OF RAILWAYS IN INDIA.

Presented to both Houses of Parliament by Command of Her Majesty.

LONDON:

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1883.

[C.—3692.] *Price* 10½*d.*

BOMBAY BRANCH
OF THE
Royal Asiatic Society.
CLASS

REPORT

TO

THE SECRETARY OF STATE FOR INDIA IN COUNCIL

ON

RAILWAYS IN INDIA,

FOR THE YEAR

1882-83.

LIBRARY
OF THE
GOVERNMENT
OF INDIA
OFFICE

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Indian Railway Act, 1883	Appendi:

No. 171C., dated 18th May 1883.

From Colonel F. S. STANTON, R.E., Director-General of Railways, to the SECRETARY to the GOVERNMENT of INDIA, Public Works Department.

I HAVE the honour to submit a report relating to the Administration of Indian Railways during the year 1882–83, which is intended to replace the Annual Report hitherto prepared in England by Mr. Juland Danvers for presentation to the Houses of Parliament.

2. Owing to the early date on which the publication of this return is necessary, full information of the working results, statistics, and general administrative details of each line could not be awaited. Special returns were therefore called for from each Railway Administration, and from these, and the other records of the Government of India, the information now given has been compiled. At this period it is impossible to give an exhaustive account of the year's operations, and the report must therefore be considered "preliminary" and as touching only on the salient features the more detailed information remaining to be set forth in the volume which it is intended to publish about November next.

3. Although the report is for the year ending 31st March 1883, some of the more interesting events up to the 15th May have been cursorily mentioned.

4. I have endeavoured as far as possible to give the tabular information formerly given by Mr. Danvers. It has, however, been found impossible to give the table of tonnage taken up for stores for the guaranteed or subsidised Railways.

It may not be uninteresting to notice that the net receipts for the year were sufficient to yield a dividend of 5·37 per cent. on the capital expended on the lines open for traffic, although that capital includes the cost of the Punjab Northern and Kandahar Railways, which, constructed for political purposes, cannot be expected to return much interest on the large amounts expended on them.

5. With these remarks I now have the honour to submit the report to the Government of India.

RAILWAYS IN INDIA.

Preliminary Administration Report, 1882-83.

It was suggested by Her Majesty's Secretary of State for India that the report on Indian Railways, which has hitherto been compiled each year in England by the Government Director of Indian Railway Companies, might be more conveniently prepared in this country. The Government of India concurred in this view, and directed the preparation of the present report, which is designed to take the place of that hitherto compiled by Mr. Juland Danvers. The usual detailed Administration Report by the Director General of Railways will be published in November or December next, when the fuller information required for its compilation is available.

2. During the year 1882-83, 373¾ miles of new railway were completed and opened for traffic, and on the 31st March 1883 the total length of line sanctioned was 12,655¼ miles, of which 10,317¼ miles were open for traffic, and 2,338 miles remained to be completed; on the next page will be found a statement of the additions to open mileage made during the past official year, and a statement showing the lengths of line sanctioned for construction and opened for traffic on the 31st March 1883.

WORKS IN PROGRESS.

3. Taking the Railways in the order in which they are placed in these statements, the following is a brief notice of the principal work in hand.

East Indian Railway.

On the East Indian Railway, the opening of the Mokameh branch was sanctioned on the 1st May 1883. This short line has been constructed in connexion with the new ferry over the Ganges which will shortly be established by the Tirhoot State Railway authorities at Semuria in lieu of the existing ferry at Barrh.

Hooghly Bridge.

4. The most important work remaining to complete the East Indian Railway is the bridge over the Hooghly, to connect the systems east and west of that river, and provide the East Indian Railway with access to Calcutta. Nothing has yet been done beyond preliminary operations.

The bridge as designed will consist of a central double cantilever 320 feet long, resting on two piers placed 120 feet apart, in the middle of the channel; of two main girders each 440 feet long, one on either side of the central cantilever; and of two masonry viaducts, each 450 feet in length, extending inland from either abutment.

The total length of the bridge is thus 2,100 feet, of which the centre portion, 1,200 feet, spans the waterway of the main channel.

By means of the central cantilever an additional 100 feet of opening is added to the two main spans, so that, although the girders proper are only 440 feet long, a clear waterway of 540 feet will be provided on either side of the two central piers.

STATEMENT showing lengths of line sanctioned and open for Traffic on the 31st March 1883.

Railways.	Gauge.	Length of Line sanctioned.	Length opened during 1882–83.	Total Length opened on 31st March 1883.	Length laid with Double Line.	Length remaining to be finished.
STATE LINE WORKED BY COMPANY.	Ft. In.	Miles.	Miles.	Miles.	Miles.	Miles.
East Indian	5 6	1,513	*2½	1,506½	468½	6½
GUARANTEED COMPANIES.						
Madras	5 6	861¼	2¾	861¼	42½	—
South Indian	3 3⅜	653½	—	653½	—	—
Bombay, Baroda and Central India	5 6	438½	—	438½	23	—
Great Indian Peninsula	5 6	1,288	—	1,288	324	—
Eastern Bengal	5 6	160	—	160	—	—
Oudh and Rohilkhand	5 6	686½	—	546¾	—	139¾
Sind, Punjab and Delhi — Punjab and Delhi	—	578¼	—	553¾	—	24½
Sind	5 6	109¾	—	109¾	4½	—
Total, East Indian and Guaranteed Railways		6,288¾	5¼	6,118	862½	170¾
ASSISTED COMPANIES.						
Southern Mahratta	3 3⅜	435	—	—	—	435
Bengal Central	5 6	125½	20	20	—	105½
Bengal and North-Western	3 3⅜	455	—	—	—	455
Burdwan-Kutwah	2 6	40	—	—	—	40
Serafuli-Tarkessur	5 6	22	—	—	—	22
Baidynath-Deogarh	3 3⅜	6	4	4	—	2
Assam Light Railway	3 3⅜	75	15†	15	—	60
Darjeeling-Himalayan	2 0	50	—	50	—	—
Rohilkhund-Kumaon (late Bareilly-Ranibagh)	3 3⅜	62	—	—	—	62
West of India Portuguese	3 3⅜	49½	—	—	—	49½
Pondicherry	3 3⅜	7¾	—	7¾	—	—
Total, Assisted Companies		1,327¾	39	96¾	—	1,231
STATE.						
Imperial.						
Punjab Northern	5 6	355¼	43¼	352¼	—	3
Do. Salt Branch	3 3⅜	73¾	10	73¾	—	—
Indus Valley and Kandahar	5 6	653	17½	652	—	1
Rajputana-Malwa Railway	5 6	1½	—	1½	—	—
Ditto	3 3⅜	1,417¾	89†	1,203¾	—	214
Sindia	5 6	74¾	—	74¾	—	—
Patri	5 6	22½	—	22½	—	—
Dhond-Manmad	5 6	145¾	—	145¾	—	—
Wardha Coal	5 6	46½	—	46½	—	—
Total, *Imperial*		2,790¾	159¾	2,572¾	—	218
Provincial.						
Bengal :—						
Calcutta and South-Eastern	5 6	56½	15	43	—	13½
Nalhati	4 6	27¼	—	27¼	—	—
Northern Bengal	3 3⅜	252½	—	232½	—	20
Kaunia-Dhurla Tramway	2 6	21	—	21	—	—
Kaunia-Mogul Hât do.	2 6	13½	—	13½	—	—
Porádaha-Damukdia	5 6	13	—	13	—	—
Tirhoot	5 6	3	—	3	—	—
	3 3⅜	240	73¾	155¾	—	84¼
Patna-Gya	5 6	57	—	57	—	—
Dacca-Mymensingh	3 3⅜	85	—	—	—	85
North-Western Provinces and Oudh :—						
Hathras-Muttra-Achnera	3 3⅜	53	—	52	—	1
Cawnpore-Farukhabad	3 3⅜	197	—	86	—	111
Dildarnagar-Ghazipur	5 6	12	—	12	—	—
Bareilly-Pilibhit	3 3⅜	33	—	—	—	33
Central Provinces :—						
Nagpur and Chhattisgarh	3 3⅜	149	51	149	—	—
Burma :—						
Rangoon to Prome	3 3⅜	161	—	161	—	—
Prome to Allamyo	3 3⅜	42	—	—	—	42
Rangoon to Toungoo	3 3⅜	163½	—	—	—	163½
Punjab :—						
Amritsur-Pathankot	5 6	65	—	—	—	65
Assam :—						
Kokilamukh	2 0	6½	—	—	—	6½
Total, *Provincial* lines		1,650¾	139¾	1,026	—	624¾

* Excludes doubling of line for a length of 58½ miles between Buxar and Moghal Sarai. † For goods traffic only.

Statement showing lengths of line sanctioned and open for traffic—*continued.*

Railways.	Gauge.	Length of Line sanctioned.	Length opened during 1882–83.	Total Length open on 31st March 1883.	Length laid with Double Line.	Length remaining to be finished.
STATE RAILWAYS.	Ft. In.	Miles.	Miles.	Miles.	Miles.	Miles.
Native States.						
Bhopal	5 6	62	11½	11½	—	50½
Bhavnagar-Gondal	3 3⅜	192⅓	—	192⅓	—	—
Gaekwar of Baroda's	2 6	60¼	—	60¼	—	—
Jodhpore	3 3⅜	18½	18½	18½	—	—
Khamgaon	5 6	8	—	8	—	—
Amraoti	5 6	6	—	6	—	—
Mysore	3 3⅜	129	—	86	—	43
Nizam's	5 6	121	—	121	—	—
Total, *Native States*		597¼	30	503¾	—	93½
SUMMARY.						
East Indian and Guaranteed Lines		6,288¾	5¼	6,118	862½	170¾
Assisted Lines		1,327¾	39	96¾	—	1,231
State { Imperial		2,790¾	159¾	2,572¾	—	218
State { Provincial		1,650¾	139¾	1,026	—	624¾
Native States		597¼	30	503¾	—	93½
Total for all Railways		12,655¼	373¾	10,317¼	862½	2,338

Additions to open Mileage from 31st March 1882 to 31st March 1883.

Railway and Section.	Length in Miles.	Date of Opening.	Remarks.
EAST INDIAN RAILWAY.			
Bhadreswar Branch	2½	6th December 1882.	
Buxar to Dildarnagar	22¼	15th April 1882	Double lin
Dildarnagar to Zumania	8¼	20th May 1882	Do.
Zumania to Sakaldiha	17	20th September 1882	Do.
Sakaldiha to Moghal Sarai	11	10th August 1882	Do.
Total East Indian Railway	61		
GUARANTEED.			
Madras, Bangalore Branch :—			
Bangalore Cantonment to Pettah	2¾	1st July 1882.	
Total	2¾		
ASSISTED COMPANIES.			
Bengal-Central	20	16th October 1882	Worked by the Eastern Bengal Railway Company.
Ranaghat to Bongong			
Baidyanath-Deoghur	4	23rd December 1882.	
Assam Light Railway	15	October 1882	For goods traffic only.
Debrugarh to the Denjan Stream			
Total Assisted Companies	39		
STATE RAILWAYS.			
Imperial.			
Punjab Northern Railway :—			
Khairabad to Peshawar City	41	1st May 1882.	
Peshawar City to Peshawar Cantonment	2¼	1st January 1883.	
Khewra Extension, Salt Branch line	10	5th January 1883.	
Indus Valley and Kandahar Railway :—			
Sibi to Rindli	17½	1st May 1882	The line from Sibi to Pir Chowki (19 miles) was opened for military traffic on 11th October 1880.
Rajputana-Malwa Railway :—			
Rewari to Hissar	89	15th March 1883	For goods traffic only.
Total State Railways, *Imperial*	159¾		

Additions to open Mileage from 31st March 1882 to 31st March 1883—*continued.*

Railway and Section.	Length in Miles.	Date of Opening.	Remarks.
STATE RAILWAYS.			
Provincial.			
Calcutta and S.E. Railway :—			
Sonarpur to Baruipur	5	10th June 1882.	
Baruipur to Mugra Hât	10	18th December 1882.	
Tirhoot State Railway :—			
Western Extension, Mozufferpore to Motihari	49⅓	1st February 1883.	
Eastern Extension, Durbhunga to Jhunjarpore	24¼	Do.	
Nagpur and Chhattisgarh Railway :—			
Amgaon-Rajnandgaon	51	16th December 1882. Goods traffic. 5th February 1883 Passenger traffic.	Completes this railway as at present sanctioned.
Total State Railways, *Provincial*	139¾		
NATIVE STATES.			
Bhopal State Railway :—			
Itarsi to Hoshangabad	11½	1st June 1882	Worked under agreement by the Great Indian Peninsula Railway Company.
Jodhpore :—			
Karchi to Pali	18½	24th June 1882. For goods traffic. 27th July 1882. Passenger traffic.	
Total Native States	30		
Total opened during 1882-83	432¼		
or excluding doubling of line on East Indian Railway	373¾		

Oudh and Rohilkhand Railway.

5. On the Oudh and Rohilkhand Railway the lengths under construction are—

The Benares bridge and junction line	5¾	miles.
The Northern Extension, Moradabad to Saharanpur	115	,,
With a branch to Hurdwar	19	,,
Total	139¾	,,

Benares Bridge.

6. The bridge which is being constructed over the Ganges at Benares by the Oudh and Rohilkhand Railway Company will, when completed, establish an additional through communication between the Oudh and Rohilkhand and East Indian Railways. The through traffic by these railways *viâ* Benares at present crosses the river by a boat bridge in the dry season, and in country boats during the rains, and the double transhipment involved is a great hindrance to traffic.

The permanent railway bridge will consist of 7 spans of 356 feet, with an extension on the south bank of 9 spans of 114 feet. The girders will be of steel. The flooring of the bridge at rail-level will be adapted to ordinary wheel traffic, and will be carried on the lower boom of the large and on the upper boom of the small spans. A clear headway of 25 feet will be given above the estimated highest flood-level.

The sinking of the eight extension piers on the south bank is practically finished, and work on the abutments of the bridge is well advanced.

The southernmost of the main piers, No. 7, was sunk 87 feet below low water on the 31st March 1883; No. 6 pier was down 75 feet, and a beginning had been made on Piers Nos. 1, 4, and 5 which had been sunk to depths of 21, 41, and 71 feet respectively.

The elaborate pontoon and staging equipment and the patent dredgers, sent out for the purpose, were being successfully utilised for sinking piers Nos. 4 and 5, and it was hoped that these would be so far advanced when the monsoon set in as to be perfectly secure during the flood season, and that piers Nos. 2 and 3 would be similarly sunk during the working season of 1883–84. But, unfortunately, on the 17th April a very serious disaster occurred to pier No. 4.

7. The pier in question, in common with the other main piers, is of an elliptical shape, the major axis 65 feet and the minor axis 28 feet long. The thickness of the ellipse ring is 5 feet at the sides and 6 feet at the ends, and the ellipse is divided into three working chambers by two cross walls 5 feet thick, the junctions of these cross walls with the ellipse ring being strengthened with gussets of brickwork.

At the time of the accident the total height of the pier from the bottom of the kerb to the top of the brickwork was 91 feet, of which 26 feet consisted of iron caisson filled with concrete and brickwork, and 65 feet of brickwork unprotected by iron sheathing. The pier had been sunk about 49½ feet below the bed of the river, and the depth of the river was 21 feet, leaving 20½ feet of brickwork above water-level. One of the patent excavators was at work in each of the three chambers of the pier.

8. The following extracts from the report of the Resident Engineer describe the circumstances under which the disaster occurred :—

"During the afternoon of the 17th, when the diggers had been at work since 5 a.m., the water in the well suddenly rose to above the top of the brickwork (then 20–6 above the river level) pouring over the top. A loud report immediately followed, and the brickwork of the steining burst open at the up-stream end, leaving a gap of 4 feet in width at water level. A portion of the steining extending over about ⅓ of the entire circumference was thrust outwards by the column of water penned up inside it, and now leans outwards at a slope of 1 in 15½. This portion fell against the pontoon adjoining, fortunately without causing it any serious injury.

"The primary cause of the accident was a sudden and violent in-rush of sand under the curb from above the hard sand stratum on which the well rested. This sand displaced the water in the well, pushing it up over the top and bringing an enormous pressure to bear on the inside of the well.

"The sand not only filled in the hole excavated below the curb, but rose in the well to a height of 29′ 6″ in the up-stream compartment, 17′ 6″ in the middle, and 13′ 6″ in the down-stream compartment.

"The portion of steining thrust out extends down to within 3 feet of the iron caisson.

"The caisson itself has apparently received no injury."

Up to this time the work had been most successfully conducted by Mr. Walton, and the accident which has occurred is much to be lamented, as it will probably delay the opening of the bridge for a whole season. The measures to be taken to repair the injury sustained, and to obviate as far as possible any risk of similar accidents in the future, are now* under consideration.

Northern Extension.

9. On the Northern Extension of the Oudh and Rohilkhand Railway, connecting this system with the Sind, Punjab, and Delhi Railway at Saharanpur, the Company have completed the earthwork on the first 47 miles from Moradabad, and it is hoped that work will now be vigorously prosecuted over the entire length of the extension. The date of through opening will depend upon the completion of the bridge over the Ganges at Balawala, which is to consist of 11 spans of 264 feet, but it is hoped that this bridge will be opened for traffic early in 1886. Instructions have been issued for the commencement of work on the branch running to Hurdwar.

Sind, Punjab, and Delhi Railway.

10. In November 1882 the construction of a branch from Raewind on the Sind, Punjab, and Delhi Railway to Gunda Singh Wala on the right bank of the Sutlej opposite Ferozepore was sanctioned, at an estimated cost of ten lakhs of rupees, to be constructed by the Sind, Punjab, and Delhi Railway Company as part of their system; the permanent way to be entirely drawn from the second-hand materials available in the Company's stores. This line was opened for traffic to Kasur, 16 miles, on the 15th April 1883, and will probably be completed to the Sutlej, 24½ miles in all, on the 31st December 1883. This branch will prove a valuable feeder to the main line.

11. Rupar Branch Railway.—Sanction was given to open this railway for public traffic from the 1st April 1883. It is a surface line 48 miles in length, and was originally made for the constructional purposes of the Sirhind Canal works. These have now been completed and, as the line is no longer required for the canal, it has

* 15th May 1883.

been arranged, in lieu of taking it up, to make it over to the Sind, Punjab and Delhi Railway to be worked experimentally for one year for general traffic.

The length of this branch is, from Doraha (on the Sind, Punjab, and Delhi Railway) to Rupar 32 miles, and from Rupar to the Nalagarh quarries, 16 miles.

12. The line from Amritsar to Pathankote, 65 miles in length, now being constructed by the Punjab Government, will probably be partly opened for traffic during the current year, and arrangements have been made for the working of the line by the Sind, Punjab, and Delhi Railway Company.

13. A proposal has been made by the Durbar of the Patiala State to utilise a portion of its surplus revenues in the construction of a broad-gauge railway from the Rajpura Station of the Sind, Punjab, and Delhi Railway to Patiala, a distance of 16 miles, as well as of a narrow-gauge line from Patiala westwards in connexion with the Rewari-Ferozepore Railway now under construction.

The proposals have received the general approval of the Government of India, so far as regards the line from Rajpura to Patiala, and, if the project is finally sanctioned, it is probable that the construction and working of this short branch may be undertaken by the Sind, Punjab, and Delhi Railway Company.

Bengal Central Railway.

14. Besides the length shown as open to traffic under "Assisted Companies," the section of the Bengal Central Railway from Dum-Dum to Duttopokur, 14½ miles, was opened shortly after the close of the official year.

This section, and that previously opened from Ranaghat to Bongong, 20 miles, will be worked as a temporary arrangement by the Eastern Bengal Railway Company.

The land required for the extension northwards of the Bengal Central Railway from Ranaghat to Bhagwangola, 92 miles, is being taken up, and it is hoped that this important extension will shortly be included in the operations of that Company.

Burdwan-Kutwah Railway.

15. Sanction has been given to the construction by a local Company of a line of railway, on the 2′ 6″ gauge from Burdwan, along the existing road, to Kutwah and Dainhat on the river Bhagirathi, a distance of 40 miles.

The capital required for the undertaking, estimated at from 13 to 14 lakhs of rupees, is to be raised locally, and the only concessions asked for by the local projectors are the grant of the land at a nominal rent, and certain rights with reference to the existing road.

Serafuli-Tarkessur Railway.

16. The Government of India have approved of the proposals made by the promoters of a local Company to be formed for the construction of a short line, 22 miles long, from the Serafuli Station on the East Indian Railway, 14 miles from Howrah to Tarkessur in the Hooghly District. This branch, which will pass through a very rich and populous country, will probably be worked by the East Indian Railway Company.

Kissenganj-Kotechandpur Railway.

17. Negotiations have been entered into with a private Company, which proposes to construct and work a two-feet gauge railway from the Kissenganj Station of the Eastern Bengal Railway to Kotechandpur, an important centre of the sugar trade of Jessore, a distance of 19 miles.

Punjab Northern State Railway.

18. The only lengths still in the hands of the construction staff on the Punjab Northern State Railway are the bridge over the Indus at Attock, and a length of about two miles of the west approach thereto, on which some heavy tunnelling work remains to be completed. On the Attock bridge, two spans of 308 feet and three spans of 257 feet the girder erection is completed, and the bridge will probably be opened for public traffic on the 1st June 1883. The first engine crossed this bridge on the 5th May 1883, and so marked the completion of through railway communication over the 1,560 miles which divide Peshawar and Calcutta.*

19. The construction of a branch line from Wazirabad on the Punjab Northern State Railway to Sialkote, about 25½ miles on the 5′ 6″ gauge, was sanctioned shortly after the close of the official year, and it is expected that this branch will prove a valuable feeder to the main line.

Indus Valley State Railway, Sukkur Bridge.

20. On the Indus Valley State Railway, the construction of a combined railway and road bridge over the Indus at Sukkur was sanctioned by the Secretary of State just

* The Attock Bridge and connecting lines were opened for traffic on Her Majesty's birthday, the 24th May.

before the close of the official year, and the working drawings are now under preparation in England.

The site selected is that known as the Haji Motu, and the wider or Rori channel will be crossed in one span by a bridge designed on the cantilever system.

The span proposed is 840 feet from centre to centre of cantilevers, giving a clear width of 800 feet between the blocks of masonry on which they stand. Each cantilever will be 320 feet long, and the central girder connecting them 200 feet long.

The roadway for ordinary wheel traffic will be at the same level as the rails and 18 feet wide in the clear, with an outside pathway $4\frac{1}{2}$ feet wide on either side for foot and pony traffic.

21. Under the Rajputana-Malwa system the Rewari-Ferozepore Railway has been included. The length of this line, with a branch to Fazilka, is 301 miles, and the first 89 miles, Rewari to Hissar, were opened for goods traffic just before the close of the official year, and for passenger traffic on the 1st May 1883. Rajputana-Malwa Railway.

22. Sanction has been given to an expenditure of Rs. 6,00,000 for the extension of the Ujjain branch of the Rajputana-Malwa Railway across the River Sipra to the city of Ujjain, a distance of about two miles.

Ujjain is the capital of the Malwa possessions of His Highness the Maharajah Sindhia, and it is hoped that the completion of this branch line of railway will materially assist in the development of the trade of this city.

The Sipra river will be bridged with six spans of 150-feet girders.

23. On the provincial railways in Bengal, 15 miles of the Diamond Harbour Extension of the Calcutta and South-Eastern Railway were opened for traffic during the year. The remaining 12 miles are completed and were opened at the end of April. Calcutta and South-Eastern Railway.

24. Portions of the Western and Eastern Extensions of the Tirhoot Railway, aggregating $73\frac{3}{4}$ miles in length, were opened during the year, leaving 27 miles incomplete. Tirhoot Railway.

25. The existing ferry plying across the Ganges between the East Indian and Tirhoot Railways at Barrh will shortly be moved to near Mokameh, owing to the difficulties experienced at the Barrh crossing, due to the shifting character of the banks and river-bed, and a new line, 23 miles long, has consequently been constructed by the Bengal Government from Dulsing Serai to Semuria, opposite Mokameh, and is now ready for opening.

The short branch of $2\frac{1}{2}$ miles from Mokameh to the river bank, constructed by the East Indian Railway Company, completes the connexion.

26. An addition has lately been made to the Tirhoot Railway system in the shape of a line sanctioned for construction on the metre gauge from Mozufferpur to Hajipur on the left bank of the Ganges, nearly opposite Patna. This line will be 34 miles in length, and is estimated to cost 22 lakhs of rupees.

The East Indian Railway Company have agreed to make a short branch, about four miles in length, from their Bankipur station to the river bank, in connexion with this project.

27. The construction of a bridge over the Gunduck at Hajipur, to connect the Tirhoot Railway with the Bengal and North-Western Company's line at Sonepur, is also under consideration; and it is further proposed to inaugurate a steam ferry over the Ganges to afford communication between the East Indian Railway and the Tirhoot and Bengal and North-Western lines, but it has not yet been decided by what agency these works shall be undertaken.

28. Under instructions from the Government of India, the Bengal Government has, however, submitted approximate estimates of the cost of completing a line of railway on the metre gauge from Sonepur, the terminus of the Bengal and North-Western Railway, nearly opposite Patna, to Dhubri on the Brahmaputra River in Assam.

The project, as submitted, includes a bridge over the Gunduck River near Sonepur, consisting of eight spans of 250 feet each, a ferry four miles in length over the river Kosi, and large bridges over the Teesta, Dhurla, Sunkosh, and Gungadhur rivers near Dhubri.

The total length of the line is 410½ miles, and is estimated to cost 326¾ lakhs, or Rs. 79,600 per mile; of this length, 113½ miles are open for traffic and 53¼ are under construction.

This line, when constructed, will afford through communication between the North-Western Provinces, Behar, and Assam, in connexion with a line of fast steamers to run on the Brahmaputra from Dhubri to Upper Assam. Under existing arrangements there is great difficulty of communication between the Northern Bengal State Railway and Dhubri, and the above project will, if carried out, rectify this by providing a properly bridged metre gauge line of railway right up to Dhubri.

The Government of Bengal also desire to include in the general project a branch, 13½ miles in length, from Saifganj to Munihari, and a steam ferry thence across the Ganges to Sahebganj, five miles, in connexion with the East Indian Railway loop line.

Cawnpore-Farukhabad Railway.

29. In the North-Western Provinces work has been started on the north-westerly extension of the Cawnpore-Farukhabad Railway, which will eventually pass over the East Indian Railway by a high level bridge at Eathras Road, in connexion with the existing metre gauge railway which runs thence to Muttra.

At Muttra a beginning has been made on the Jumna bridge, which will consist of 7 spans of 150 feet. The completion of this bridge will afford through communication between Cawnpore and the Rajputana-Malwa Railway system.

Bareilly-Ranibagh Railway.

30. The construction of a metre gauge line from Bareilly to Pilibhit has been sanctioned, and the works on the first 4½ miles of this line are in hand. At a point 4½ miles from Bareilly, the railway to Ranibagh, being constructed by private agency, will diverge, and running powers over this short section will be given to the Rohilkhand and Kumaon Railway Company by the North-Western Provinces Government.

Nagpur-Chhattisgarh Railway.

31. In the Central Provinces an additional length of 51 miles has been opened on the Nagpur-Chattisgarh Railway up to Rajnandgaon, which completes the length at present sanctioned for this line.

Bhopal Railway.

32. In Native States the first 11½ miles of the Bhopal Railway, from Itarsi to Hoshungabad, were opened for traffic on the 1st June 1882.

The progress on the remaining 57 miles to Bhopal has not been so rapid as was anticipated, but it is thought that the entire length will be opened before the rains of 1884.

The principal work on the line is the bridge over the Nerbudda at Hoshungabad, and there is some heavy work on the ghat section, some 7½ miles long.

Jodhpur Railway.

33. In Rajputana the section of the Jodhpur Railway which was under construction, *viz.*, from Karchi Station on the Rajputana-Malwa Railway to Pali, 18½ miles, has been opened for traffic.

This line has been constructed at the expense of, and is being worked by, the Jodhpur State. It will probably be eventually extended to Jodhpur, about 52 miles north of Pali.

LINES UNDER SURVEY.

34. The following are the most important of the lines of which surveys or reconnaissances have recently been made, and which have not been referred to above.

Bengal-Nagpur Railway.

During the last cold season detailed surveys have been made for a broad-gauge railway from Sitarampur on the East Indian Railway to Bilaspur in the Central Provinces. The route followed is that known as the "southern route", *viâ* Chyebassa. The distance from Sitarampur to Bilaspur is about 366 miles. From Nagpur to Rajnandgaon, 149 miles, a line on the metre gauge is constructed and open for traffic. From Rajnandgaon to Bilaspur, 112 miles, the line has previously been surveyed in connexion with the existing metre gauge line.

The entire project advocated by the promoters of a Company, for a line of railway of uniform gauge from Sitarampur to Nagpur, comprises the construction of about 478 miles of broad-gauge railway, and the conversion to broad gauge of 149 miles of the existing metre gauge State line, or about 627 miles in all. It is believed that this railway, which will open out the coal-fields of Chota Nagpur and accommodate the rich grain districts of Chhattisgarh, will prove highly remunerative. It will,

moreover, when constructed, shorten the distance between Bombay and Calcutta by about 123 miles.

35. In connexion with this project surveys have been made for a line to run from Vizagapatam, on the east coast in the Madras Presidency, to Raipur, a distance of about 372 miles. This line is of importance for purposes of famine protection. Vizagapatam-Raipur.

36. Surveys are further being made for a line running southwards from Benares through Palamow and Lohardaga to Cuttack and on to Puri, about 530 miles. This line would cross the Bengal-Nagpur Railway at Laingarh or Chakardarpur, and it is hoped that, from its probably remunerative character, it will attract private enterprise, as the northern half of it will pass through a country rich in mineral resources, and its southern extremity will be at Puri, to which it would convey the vast number of pilgrims who annually visit that place. Benares-Cuttack.

It would further place Orissa in direct communication with the grain districts of the Central Provinces and effectually protect the former from famine. A connexion from Tori with the existing railway to Gya, about 120 miles, would open up the Karanpura coal-field, and serve the large pilgrim traffic between Gya and Puri.

37. It is believed that negotiations have been entered into with a Company, formed under the auspices of the Great Indian Peninsula Railway Company, to extend the Bhopal line through Lalitpur and Jhansi to Gwalior, with a branch from Jhansi to Cawnpore, a total length of about 385 miles. This will be a most important connexion for the Great Indian Peninsular Railway, as it will provide through communication on the broad gauge between Cawnpore and Bombay by a line about 115 miles shorter than the existing route *viâ* Allahabad and Jubbulpore; and the distance from Agra to Bombay by the broad gauge line *viâ* Gwalior and Bhopal will be some 8 miles less than that by the mixed gauge route *viâ* Ajmere and Ahmedabad. Bhopal, Jhansi-Gwalior and Jhansi-Cawnpore.

38. Proposals have also been made for an extension of the above line from Bhopal to Ujjain, 110 miles, and a prolongation of the Dakor branch of the Bombay, Baroda and Central Indian Railway from Godhra to Rutlam, 112 miles. A connexion would thus be made between Central India, Malwa, Gujerat, and Kathiawar, which would probably greatly develop the already considerable traffic between these districts. The surveys from Godhra to Rutlam are being carried out by the Bombay, Baroda, and Central India Railway Company at the expense of the State. Bhopal-Ujjain and Godhra-Rutlam.

39. During the past working season surveys have been made for a line from Lalitpur, through Saugor and Damoh, to Katni on the Jubbulpore branch of the East Indian Railway, and on through Rewah to Bilaspur on the proposed Bengal-Nagpur line. Lalitpur-Katni-Bilaspur.

This railway would open up the Rewah coal-fields, and be invaluable in time of scarcity as a channel for the supply of food grains from Chhattisgarh to Bundelkhand and Northern India.

40. Surveys have also been made for a line to run through Bundelkhand from Jhansi *viâ* Banda to Manikpur, on the Jubbulpore branch of the East Indian Railway. This line is much wanted, and was recommended by the last Famine Commission. It is probable that its construction will shortly be undertaken by the State. Its length will be about 180 miles. Jhansi-Manikpur.

41. In Bombay complete surveys have been made of a line, to be called the Western Deccan Railway, connecting Toonah with Belgaum. This line will be about 253 miles long, and it is possible that it may eventually be included in the operations of the Southern Mahratta Railway Company. Western Deccan Railway.

42. A proposal has been received from the Government of Bombay for the construction of a branch line, 20 miles in length, from the Barsi road station of the Great Indian Peninsula Railway, south-east line, to the town of Barsi, and, if satisfactory terms can be arranged with the Great Indian Peninsula Railway Company for working such a branch, its prospects from a financial point of view appear to be good. Barsi Branch.

43. In Hyderabad it is understood that the Nizam's Government has entered into negotiations with a Company for the extension of its railway eastwards to Warangol, Hyderabad.

94 miles, and thence, northwards, to meet a proposed extension of the Wardha Coal Railway at Chanda, 255 miles from Hyderabad.

A branch is also contemplated from Warangol, eastwards, through the Singareni coal-field, 70 miles, which should be extended to Bezvada on the Kistna to enable this coal to be supplied to the railways in Madras.

From Bezvada Singareni coal could be carried by canal to Madras, where it could be delivered at a considerably less cost than English coal.

Madras.

44. In the Madras Presidency surveys are being made for alternative lines from Adoni on the Madras Railway *viâ* Kurnul to Guntur, and from Tadpatri also on the Madras Railway, to Guntur. The construction of one of these alternative lines may be regarded as a protective work of primary importance for supplying the Bellary and Kurnul districts with food in time of famine.

Surveys have also been made of a line to run from Cuddapah or Tirupati, both on the Madras Railway, to Nellore. This project is also considered of importance for protective purposes.

It is believed that a Company is about to undertake the construction of a short hill railway, 12 miles in length, from Metapollium on the Madras Railway to Conoor. This line is commonly spoken of as the Nilgiri Railway.

Efforts are being made to float a Company, under limited guarantees from the States of Cochin and Travancore, to construct a railway on the broad gauge from Shoranur to Cochin, a distance of 59 miles.

Rawalpindi-Murree.

45. In the Punjab the survey of the Rawalpindi-Murree Railway has been completed, and detailed estimates prepared for a line of $2\frac{1}{2}$ feet gauge. The line will be 46 miles long with a maximum gradient of 1 in 30, and is estimated to cost 23 lakhs of rupees.

Proposals are now before the Punjab Government to form a Company to construct this railway with a capital of 25 lakhs of rupees, which will include the payment of interest during construction.

Assam.

46. In Eastern Bengal and Assam surveys are being made for a line from Daodkhandi through Komilla to Chittagong, 125 miles in length. An extension from Komilla to Kachar, 180 miles, forms part of the same project. Surveys are also being made with a view to determining whether it is feasible to run a line through the north Kachar hills, from Kachar *viâ* Golaghat to Dibrugarh, with a branch to Nowgong, some 300 miles in all. This line would open up communication with the tea industries in Sylhet, Kachar, and Upper Assam, would be useful for immigration purposes, and important from a military point of view. It would further derive material assistance from the coal-fields at Makum, the working of which has lately been undertaken by the Assam Railways and Trading Company.

The Chief Commissioner of Assam has been authorised to prepare a project for a series of wire-rope tramways, which it is proposed to work on the very precipitous descent, below Cherrapunji, on the road between Shillong and the Sylhet district.

General.

47. At the conclusion of his report on railways in India for the year 1881–82, Mr. Juland Danvers gave a brief and interesting review of the various phases through which Railway policy in this country had passed during the last 22 years, and the following quotation from the Honourable Major Baring's Financial Statement for the current year will be interesting as having reference to the immediate future. He says:—

"Turning to the question of improved communications, * * * * * it is to be observed that during the last two years the Railway policy of the Government of India has been unsettled. I do not think that is any matter for surprise or for regret. In inaugurating a policy under which railways were, to some extent at all events, to be constructed through the agency of private enterprise, it was almost inevitable that there should be a period of transition during which it would be exceedingly difficult to adhere to any fixed policy. It was easy to declare beforehand the broad aim which the Government sought to attain, namely, the construction of railways through the agency of unaided private enterprise, but experience alone could show how far that aim was attainable. We have now had two year's experience of the private enterprise policy. During that time a certain number of facts have been accumulated, which we think are sufficient to enable us to lay down a definite policy,

at all events for the immediate future, say for five years. We have therefore very recently addressed the Secretary of State on the subject, but I am not as yet in a position to state what the final decision of the Government will be."

48. The following table shows the annual progress made with railways in India for the past 30 years, from 1853, when the first section, 20 miles in length, of the Great Indian Peninsula Railway, was opened, to 1882, by the close of which 10,144 miles were completed. Though much has been done in the past, it is clear that very much still remains to do before the whole of India is adequately served by railways; but it may be hoped that by means of the Railway policy recently recommended to the Secretary of State, the progress in the future may be more rapid than in the past.

STATEMENT showing the Annual Progress made in the Construction

Railways.	Length of Line open at														
	1853.	1854.	1855.	1856.	1857.	1858.	1859.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
East Indian	—	37¾	120½	120½	120½	139½	286½	370¼	560¾	877½	933	1,104	1,127½	1,127½	1,353
GUARANTEED.															
Bombay, Baroda and Central India	—	—	—	—	—	—	—	35	134	167¼	185	305¾	305¾	305¾	305¾
Eastern Bengal	—	—	—	—	—	—	—	—	—	109¾	109¾	109¾	109¾	109¾	139¾
Great Indian Peninsula	20½	33½	49½	87½	87½	193½	244½	297	437¾	495	552¾	585½	701½	815½	852¼
Madras	—	—	—	65	80½	95½	95½	137	296¾	447¼	447¼	570	609¼	643¾	643¾
Oudh and Rohilkhand	—	—	—	—	—	—	—	—	—	—	—	—	—	—	42
Sind, Punjab and Delhi	—	—	—	—	—	—	—	—	109½	141¾	154¾	154¾	362¾	366	412½
South Indian	—	—	—	—	—	—	—	—	48¾	82	82	82	100¾	145¼	162¼
Total Guaranteed Railways	20½	33½	49½	152½	167¾	289	339¾	469	1,027	1,443	1,531½	1,807½	2,190	2,386	2,528¾
ASSISTED COMPANIES.															
Bengal Central	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Assam Light Railway	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Darjeeling-Himalayan	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pondicherry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Deoghur	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Assisted Companies	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
STATE RAILWAYS—IMPERIAL.															
Punjab Northern	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Indus Valley and Kandahar	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rajputana Malwa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sindia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Wardha Coal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Patri	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dhond-Manmad	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total State Railways—Imperial	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
STATE RAILWAYS—PROVINCIAL.															
Calcutta and South-Eastern	—	—	—	—	—	—	—	—	—	15	28	28	28	28	28
Nalhati	—	—	—	—	—	—	—	—	—	—	27½	27½	27½	27½	27½
Northern Bengal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tirhoot	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Patna-Gya	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hathras-Muttra-Achnera	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cawnpore-Farukhabad	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dildarnagar-Ghazipur	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nagpur and Chhattisgarh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Burma	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total State Railways—Provincial	—	—	—	—	—	—	—	—	—	15	55½	55½	55½	55½	55½
STATE RAILWAYS—NATIVE STATES.															
Bhopal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bhavnagar-Gondal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gaekwar of Baroda's	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Jodhpore	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Khamgaon	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Amraoti	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nizam's	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mysore	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total State Railways—Native States	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTALS FOR ALL RAILWAYS	20½	71	170	272¾	288½	428¾	626½	839¼	1,587¾	2,335½	2,510¾	2,906¾	3,372¾	3,568¾	3,936¾

* Includes Kaunia-Dhurla line and extension thereof to Mogul Hat, 34½ miles.

of Railways in India since their commencement.

the end of each Year.															Railways.
1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	
1,353	1,353	1,353	1,503½	1,503½	1,503½	1,503½	1,503½	1,503½	1,503½	1,503½	1,504¼	1,504½	1,504½	1,506½	East Indian.
															GUARANTEED.
306¾	307½	312½	349½	389½	389½	406	407½	416¾	421½	421½	421½	421½	421½	438½	Bombay, Baroda and Central India.
112	112	112	157	157	157	159	158½	159	159	159	158¾	158¾	158¾	160	Eastern Bengal.
873½	873½	1,258¼	1,278½	1,278½	1,278	1,278½	1,278½	1,278½	1,280½	1,280½	1,287¾	1,288	1,288	1,288	Great Indian Peninsula.
675¾	705½	781½	830½	830½	858	858	858	858	858	857	857	858	858	861½	Madras.
42	42	42	42	293½	456	540½	543½	543¾	543½	546¾	546½	546½	546½	546½	Oudh and Rohilkhand.
412½	630½	666¾	666¾	663½	663	663½	663½	663½	663½	663½	663½	663½	663½	663½	Sind, Punjab, and Delhi.
185¾	185¾	185¾	185¾	185¾	185¾	185¼	281¼	474½	599½	612½	633	653½	653½	653½	South Indian.
2,608	2,856½	3,358¾	3,505	3,797¾	3,988½	4,091½	4,191¾	4,393¾	4,525½	4,540¾	4,568¼	4,589½	4,589¾	4,611½	Total Guaranteed Railways.
															ASSISTED COMPANIES.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	20	Bengal Central.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	15	Assam Light Railway.
—	—	—	—	—	—	—	—	—	—	—	—	30	50	50	Darjeeling-Himalayan.
—	—	—	—	—	—	—	—	—	—	—	7¾	7¾	7¾	7¾	Pondicherry.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	Deoghur.
—	—	—	—	—	—	—	—	—	—	—	7¾	37¾	57¾	96¾	Total Assisted Companies.
															STATE RAILWAYS—IMPERIAL.
—	—	—	—	—	—	—	62	103½	103½	103½	103¾	227¾	362¾	416	Punjab Northern.
—	—	—	—	—	—	—	—	—	—	501	501	653	653	652	Indus Valley and Kandahar.
—	—	—	—	—	91½	329	486¾	507½	507½	603¾	722	972½	1,115¾	1,116¾	Rajputana-Malwa.
—	—	—	—	—	—	—	—	—	—	34	66½	66½	74¾	74¾	Sindia.
—	—	—	—	—	—	18½	18½	18½	46½	46½	46½	46½	46½	46½	Wardha Coal.
—	—	—	—	—	22½	22½	22½	22½	22½	22¾	22¾	22½	22½	22¾	Patri.
—	—	—	—	—	—	—	—	—	—	145¾	145¾	145¾	145¾	145¾	Dhond-Manmad.
—	—	—	—	—	114	370	539¾	651¾	679¾	1,456¾	1,607½	2,134½	2,421	2,473¾	Total State Railways—Imperial.
															STATE RAILWAYS—PROVINCIAL.
28	28	28	28	28	28	28	28	28	28	28	28	28	28	43	Calcutta and South-Eastern.
27½	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½	27½	Nalhati.
—	—	—	—	—	—	—	—	—	134½	232	242½	243½	266½	280*	Northern Bengal.
—	—	—	—	—	—	53	45	45	79	79	85	85	85	85	Tirhoot.
—	—	—	—	—	—	—	—	—	—	—	57	57	57	57	Patna-Gya.
—	—	—	—	—	—	—	29	29	29	29	29	29	53	52	Hathras-Muttra-Achnera.
—	—	—	—	—	—	—	—	—	—	—	—	49½	86	86	Cawnpore-Farukhabad.
—	—	—	—	—	—	—	—	—	—	—	—	12	12	12	Dildarnagar-Ghazipur.
—	—	—	—	—	—	—	—	—	—	—	—	53	98	149	Nagpur and Chhattisgarh.
—	—	—	—	—	—	—	—	—	161	161	161	161	161	161	Burma.
55½	55½	55½	55½	55½	55½	108½	129½	129½	458½	556½	629¾	745½	873½	952½	Total State Railways—Provincial.
															STATE RAILWAYS—NATIVE STATES.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	11½	Bhopal.
—	—	—	—	—	—	—	—	—	—	—	—	105	192½	192½	Bhavnagar-Gondal.
—	—	—	—	—	20	20	20	20	20	20	40½	56¾	60½	60½	Gaekwar of Baroda's.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	18½	Jodhpore.
—	—	8	8	8	8	8	8	8	8	8	8	8	6	8	Khamgaon.
—	—	—	6	6	6	6	6	6	6	6	6	6	6	6	Amraoti.
—	—	—	—	—	—	121	121	121	121	121	121	121	121	121	Nizam's.
—	—	—	—	—	—	—	—	—	—	—	—	—	58	86	Mysore.
—	—	8	14	14	34	155	155	155	155	155	175½	296¾	445¾	503¾	Total State Railways—Native States.
4,016½	4,264¾	4,775	5,077½	5,370½	5,695	6,227¾	6,519	6,833	7,322¼	8,212¼	8,492¾	9,308	9,892½	10144¼	TOTALS FOR ALL RAILWAYS.

MINERAL RESOURCES.

Coal.

49. The question of developing the mineral resources of India is one of great importance in connexion with railway enterprise, and has not been lost sight of. Many of the projected lines which have been referred to in this Report will do much to assist in the opening out of the coal districts.

The most important fields which still require railway communication to enable them to be worked are—

The *Rewah* field at Umeria, which will be served by the proposed line from Katni to Bilaspur.

The *Singareni* field in the Nizam's dominion, which will be opened out by the proposed extensions of the Nizam's Railway.

In Chota Nagpur the *Palamow* coal-fields will be served by the projected railway from Benares to Cuttack, with a branch from Tori through Gya to Patna.

The Bengal-Nagpur line, as projected, will run close to the *Hingir* coal-field in the Central Provinces.

The *Bengal* coal-fields are being most successfully worked, and, as was noticed in Chapter VI. of the last year's Administration Report, supply coal to all the Railways in Northern India.

The *Warora* and *Mohpani* fields supply coal of an inferior quality to the lines in their immediate vicinity.

50. Explorations are now being conducted in Rewah with a view to obtaining more definite information regarding the quality and amount of coal available from that field; and also near Attock and Kushalgarh in the Punjab, to see whether any practical use can be made of the coal of which traces exist in that neighbourhood.

51. The explorations made in the Salt Range near Pind Dadan Khan show that a considerable quantity of coal exists in that district, and the Manager of the Punjab Northern Railway is sanguine that, with systematic working, this coal can be economically utilised on his line, and perhaps on portions of the Sind, Punjab and Delhi and Indus Valley Railways. The present cost of the Bengal coal used on the Punjab Northern Railway is about Rs. 30 per ton, delivered at Lahore, and the possibility of obtaining coal in the neighbourhood is therefore of vital importance to the economical working of this line. The coal hitherto obtained from the workings instituted by the officers of the Salt Department has been of a friable nature, and disintegrates on exposure, and it is thought that it will be economical to work up the small stuff into patent fuel.

Preliminary operations have been sanctioned, in connexion with the working of mines in this neighbourhood, at Chitta Dung, 15 miles from Khewra, which place is connected with the Lala Musa Branch Railway by a fair weather line to Miani, with a temporary bridge over the Jhelum.

The consumption of coal on the Punjab Northern Railway amounted to about 20,000 tons during 1882; and, if the Chitta Dung coal turns out well, and can, as expected by the local officers, be delivered at Lala Musa Junction for Rs. 10 a ton, a saving of some four lakhs of rupees will result in the annual expenditure on fuel on this Railway.

52. The fuel used to work the railways during the year compares as follows with that used in 1881 :—

	Coal.		Coke.	Patent Fuel.	Wood.
	English.	Country.			
	Tons.	Tons.	Tons.	Tons.	Tons.
1882 - -	178,987	423,015	11,898	13,758	188,044
1881 - - -	183,654	382,341	7,937	9,875	170,389

It will be seen that 70 per cent. of the coal burnt in 1882 was obtained from Indian mines, whereas in 1881 the proportion of Indian coal amounted to 67½ per cent. of the whole.

Of the Indian coal consumed in 1882, 85 per cent. was obtained from the Bengal coal-fields, 12 per cent. from Warora, and 3 per cent. from Mohpani.

The total cost of coal, English and Indian, amounted to Rs. 67,30,941, in 1882, as compared with Rs. 71,87,704 in 1881; or, in other words, the average price paid per ton was Rs. 11-2-0 in 1882, against Rs. 12-11-0 in 1881.

53. Negotiations have been entered into with a Company which proposes to take over and work the Bengal Iron Works. Iron.

The large annual demand for permanent-way materials on Indian Railways would alone, under proper management, render these works remunerative, and it will be an important step in the material prosperity of the country when India begins to supply her own wants in this respect.

54. The following statement will show the description of fuel used on the several Railways in India, the source whence it is obtained, and the average cost and consumption per train mile during the year 1882.

STATEMENT showing SOURCE and DESCRIPTION of FUEL used, and the Consumption and Cost per Train Mile on the several Railways during the year 1882.

Railway.	Source and description of Fuel used.	Per Train Mile: Consumption.	Per Train Mile: Cost.
		Lbs.	As.
East Indian (*a*)	Bengal coal	50·72	0·79
GUARANTEED.			
Madras	Patent fuel and wood	(*b*) 83·10	3·15
South Indian	English coal	27·01	3·10
Great Indian Peninsula (*c*)	English coal, also Warora, Mohpani, and Bengal coal.	45·03	4·19
Bombay, Baroda, and Central India (*d*)	English coal	45·79	4·95
Eastern Bengal (*e*)	Bengal coal	55·30	3·34
Sind, Punjab, and Delhi	English coal, also Bengal coal and wood.	39·83	5·49
Oudh and Rohilkhand	Bengal coal	45·26	3·80
IMPERIAL STATE.			
Punjab Northern	Bengal coal and wood	38·61	7·99
Indus Valley and Kandahar	English coal and wood	(*b*) 93·08	4·51
Rajputana-Malwa (*f*)	English coal and Bengal coal	31·96	4·98
Wardha Coal	Warora coal	104·00	4·00
PROVINCIAL STATE.			
Calcutta and South-Eastern	Bengal coal	63·34	4·32
Nalhati	Ditto	26·40	—
Northern Bengal	Ditto	31·84	2·69
Kaunia-Dhurla	Ditto	23·00	3·38
Tirhoot	Ditto	33·67	2·74
Patna-Gya	Ditto	43·22	3·24
Muttra-Hathras	Ditto	29·80	4·38
Cawnpore-Farukhabad	Ditto	31·25	3·39
Nagpur and Chhattisgarh	Warora coal and wood	67·00	4·00
Rangoon and Irrawaddy Valley	English coal	20·36	2·41
NATIVE STATES.			
Bhavnagar-Gondal	English coal	19·36	2·55
Gaekwar of Baroda's	Ditto	18·55	3·16
Nizam's	Wood	(*b*) 79·28	2·44
Mysore	Wood	(*b*) 89·82	4·62

(*a*) Includes Sindia, Dildarnagar-Ghazipur, and the Barrh Branch of the Tirhoot State Railway.
(*b*) In terms of wood.
(*c*) Includes Dhond and Manmad, Berar and Bhopal State lines.
(*d*) Includes Patri Branch.
(*e*) Includes Poradaha Section of Northern Bengal State Railway and Ranaghat Section of Bengal Central Railway.
(*f*) Includes the Muttra-Achnera Railway.

LINES OPEN FOR TRAFFIC.

55. During the past rainy season serious damage was caused by floods on several railways, more especially on those in the western half of the Peninsula. Flood damages

On the Sind, Punjab, and Delhi Railway, during 30 hours of continuous rain, the Sind section line was breached in several places near Karachi, on the 14th July 1882,

and the traffic temporarily interrupted. Through communication was, however, restored on the following day.

Owing to excessive rain, the Rajputana Railway was breached in several places in the month of July 1882, and mails, passengers, and luggage had, in some instances, to be transhipped across the breaks for two or three days till through communication was again restored.

56. In the end of July, at Sukkur on the Indus Valley Railway, the Indus rose to a height of 18 inches above the highest recorded flood, and the line was seriously breached in three places owing to the bursting of the marginal protective embankment along the right bank of the river. Through booking of goods was suspended from the 29th July to the 28th August, and during this time the mails and passengers with their luggage were passed across the breaks in boats. The Kandahar line was at the same time breached and laid under water for nearly two miles close to the Ruk Station.

At the height of their difficulties, while the river was at its maximum flood, and the whole 80 miles of line between Sukkur and Radhan were in a critical state, the railway authorities were called upon to pass down, with as little delay as possible, troops and mules proceeding to Egypt. By dint of great exertions on the part of the railway staff arrangements were successfully made to convey the troops in native boats by river and canal along the most damaged portions of the line, and on by rail to Karachi, with a loss of only one day beyond the time usually taken up on the journey.

The Punjab Northern Railway also suffered from the heavy floods in July, and traffic was temporarily interrupted near Attock, and at Lala Musa near Gujrat, on the main line, and, more seriously, on the Salt branch which runs westward to the Jhelum from Lala Musa. In September, owing to heavy continuous rain, the line was again breached in several places north of Rawalpindi, and through communication interrupted.

57. On the Madras and South Indian Railways traffic was temporarily interrupted by floods in November.

58. In September 1882, the Great Indian Peninsula and Bombay, Baroda, and Central India Railways suffered severely from excessive floods.

At the Abna river, close to, and on the Bombay side of, the Khandwa Station of the Great Indian Peninsula Railway, one pier of the bridge of six 60-feet spans was carried away with two spans of girders, and, behind the abutment on the Khandwa side, the railway embankment was breached for a length of 500 yards.

On the approach to the Chota Towa river, 28 miles on the Jubbulpore side of Khandwa, about 600 yards of the embankment were breached.

Through traffic was re-established by a temporary bridge over the Abna 11 days after the disaster occurred.

59. On the Bombay, Baroda, and Central India Railway, the floods in the Nerbudda and Tapti rivers are said to have attained a greater height than any previously known, and, to the south of the Tapti river, the north Purna bridge, 13 spans of 60 feet, was completely destroyed with the exception of the north abutment which remained standing. At the south Purna bridge, six spans of 60 feet, the south abutment was washed away taking with it one span of girders, and the railway embankment in the neighbourhood was breached in several places.

Through communication, with a diversion and temporary bridge over the north Purna river, was restored 24 days after the destruction of these bridges.

Accidents.

60. In the tables at pages 21 and 22 will be found a statement showing the total number of persons killed or injured on railways open for traffic during the year ending 31st December 1882, compared with the number killed or injured during 1881, together with an abstract classifying the various accidents and showing the number of passengers and railway servants killed and injured under each class.

It will be seen that during 1882 15 passengers were killed and 40 injured from causes beyond their own control, as compared with 7 killed and 75 injured in 1881.

The number of railway servants killed and injured from causes other than their own misconduct and want of caution was 30 and 87 respectively, in 1882, as compared with 24 and 105 in 1881.

The total number of passengers killed and injured from all causes, including those due to their own want of caution, amounted to 0·71 and 2·53 per million in 1882, as compared with 0·73 and 3·01 per million in 1881.

With an increase of 2·57 per cent. in the train mileage the total number of accidents from all causes has increased 0·92 per cent. in 1882 as compared with 1881.

61. The most serious accident occurred on the East Indian Railway under the following circumstances. On the 17th January 1882 the up mail train, running under a caution message, caught up, and ran into, an up goods train a little more than a mile from the Shikohabad Station. A thick fog prevented the driver of the following train from seeing the other, and the collision was attended with fatal results. Thirteen native passengers were killed and 15 injured. The European Guard of the goods train escaped by jumping out of his brake van just before the collision occurred, but was seriously hurt.

The driver of the mail train was acquitted by the High Court at Allahabad, but the railway authorities, recognising the necessity for a modification of existing rules in the case of trains following in foggy weather, issued a revised working order for the guidance of drivers in such cases.

62. On the Bombay, Baroda, and Central India Railway, owing to the carelessness of a pointsman, an up mail train ran into some waggons standing on a siding at the Viramgam Station. Thirteen passengers were slightly injured in this collision.

PERSONS EMPLOYED.

63. On pages 23 to 25 will be found information regarding the number of employés of all races on open lines of railway in India, and the number of casualties from all causes among the Europeans and East Indians. Numerical and Casualty Returns.

The totals compare as follows with those of the preceding year:—

	Number of Employés.				No. of miles open.	No. of Stations.
	Europeans.	East Indians.	Natives.	Total.		
30th September 1881 - -	3,763	3,771	162,043	169,577	9,518½	1,252
30th September 1882 - -	3,796	3,922	178,018	185,736	9,936¼	1,323

It will be seen that the Natives form 95·8 per cent. of the entire body of railway servants. The number of employés per open mile was 18·7 on the 30th September 1882, as compared with 17·8 on the same day of the previous year.

64. The percentage of casualties among Europeans and East Indians from various causes is given below for the year ending 30th September 1882:—

	Europeans.	East Indians.
Death - - - - -	2·05	1·11
Resignation or discharge - - -	14·69	14·54
Dismissal - - - - -	4·91	5·70
Total - - -	21·65	21·35

65. A statement is attached (page 22) showing the number of depositors in the Provident Fund Institutions of the several State Railways, and the sums at their credit on the 31st December 1882.

STATEMENT showing the TOTAL NUMBER of PERSONS KILLED or INJURED on the RAILWAYS opened for TRAFFIC in India during 1882, as compared with the number Killed or Injured during 1881.

	Passengers.						Railway Servants or Servants of Contractors.						Other Persons.								Total all Classes.	
	From Causes beyond their own Control.		From their own Misconduct or want of Caution.		Total.		From Causes beyond their own Control.		From their own Misconduct or want of Caution.		Total.		Whilst passing over Railways at Level Crossings.		Trespassers and Suicides.		Miscellaneous not included in preceding Columns.		Total.			
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1881	7	75	33	90	40	165	25	105	160	360	184	465	10	5	128	36	16	11	154	52	378	682
1882	15	40	27	109	42	149	30	87	135	332	165	419	14	4	120	34	13	5	147	43	354	611

Abstract of Accidents to Trains during 1882.

Serial No.	Class of Accidents.	Number of Accidents.		During 1882.						Remarks.
				Number of Passengers and others.		Number of Servants.		Total.		
		1881.	1882.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	
1	Collisions between passenger trains, or parts of passenger trains.	5	3	—	—	—	—	—	—	
2	Collisions between passenger trains and goods or mineral trains, engines, and vehicles standing foul of the line.	63	39	(a)13	(a)29	—	3	13	32	(a) In one accident on the East Indian Railway at Shikohabad on the 17th January 1882, caused by an up mail train coming into collision with an up goods train, 13 passengers were killed, and 15 injured. In another accident on the Bombay, Baroda, and Central India Railway, caused through the carelessness of a pointsman, an up mail train collided with some waggons standing on a siding at the Viramgam Station, and 13 passengers were injured.
3	Collisions between goods trains, or parts of goods trains.	111	84	—	—	4	12	4	12	
4	Collisions between light engines	12	12	—	—	—	—	—	—	
5	Passenger trains, or parts of passenger trains, leaving the rails.	56	50	1	4	—	1	1	5	
6	Goods trains, or parts of goods trains, engines, &c., leaving the rails.	322	283	—	—	1	1	1	1	
7	Trains or engines travelling in the wrong direction through points.	57	66	—	1	1	—	1	1	
8	Trains running into stations or sidings at too high a speed.	8	7	—	—	—	—	—	—	
9	Trains running over cattle on the line	1,030	1,116	1	1	—	—	1	1	
10	Trains running over obstructions on the line	114	121	1	2	2	5	3	7	
11	Trains running through gates at level crossings	60	42	—	—	3	2	3	2	
12	The bursting of boilers or tubes, &c., of engines	132	76	—	—	2	1	2	1	
13	The failure of machinery, springs, &c., of engines	246	216	—	—	—	—	—	—	
14	The failure of tyres	13	29	—	—	—	—	—	—	
15	The failure of wheels	12	3	—	—	—	—	—	—	
16	The failure of axles	45	39	—	—	—	1	—	1	
17	The failure of brake apparatus	1	1	—	—	—	—	—	—	
18	The failure of couplings	77	87	—	—	1	1	1	1	
19	The failure of tunnels, bridges, viaducts, or culverts.	1	5	—	—	—	—	—	—	
20	Broken rails	33	54	—	—	—	—	—	—	
21	The flooding of portions of permanent way	37	70	—	—	—	—	—	—	
22	Slips in cuttings or embankments	20	53	—	—	—	—	—	—	
23	Fire in trains	170	357	—	2	—	—	—	2	
24	Fire at Stations or involving injury to bridges or viaducts.	30	43	—	—	—	—	—	—	
25	Other accidents	159	216	—	2	4	4	4	6	
	Total	2,814	3,072	16	41	18	31	34	72	

	1881.	1882.
Miles open	9,719	10,018½
Train miles	35,830,313	36,751,857
No. of passengers in millions.	54⅛	58⅞

Table showing the Number of Depositors in the Provident Fund Institution of the several State Railways and the Sums at their Credit on the 31st December 1882.

State Railway.	Number of Staff depositing.	No. of Depositors.		Amount of Credit on 31st December 1882.				Remarks.
		Voluntary.	Compulsory.	Voluntary.	Compulsory.	Bonus.	Total.	
				Rs.	Rs.	Rs.	Rs.	
Imperial State.								
Punjab Northern	761	27	759	5,408	37,433	5,361	48,202	
Indus Valley and Kandahar	1,263	141	1,145	18,838	64,411	13,735	96,984	
Rajputana Malwa	2,034	83	2,070	30,053	1,03,669	48,144	1,81,866	
Wardha Coal	50	6	50	307	2,967	516	3,790	
Provincial State.								
Northern Bengal	358	56	354	5,739	27,922	8,733	42,399	
Tirhoot and Patna-Gya	272	41	270	7,026	18,123	6,941	32,090	
Muttra-Hathras	77	Nil.	77	Nil.	1,548	223	1,771	
Cawnpore-Farukhabad	122	2	122	115	4,117	1,182	5,414	
Nagpur and Chhattisgarh	197	8	197	258	8,809	1,725	10,792	
Rangoon and Irrawaddy Valley	308	62	303	10,395	24,774	8,910	44,079	
Native States.								
Bhavnagar-Gondal	286	12	286	1,049	6,590	1,700	9,339	
Nizam's	160	26	159	2,789	10,890	3,081	16,760	
Total	5,888	464	5,792	81,977	3,11,253	1,00,256	4,93,486	

Numerical Return of all Races employed on open Lines of Railway and on the River Steamer Services on the 30th September 1882.

Railways.	General Administration, including Agency, Audit, Account, Paymasters, Stores, Medical, Barrack, Printing, Stationery, and Police Establishments.				Traffic and Telegraph Departments.				Engineer's Department.				Locomotive and Carriage and Wagon Departments, including Steamboat Establishments.				Total.				Number of Miles Open.	Number of Stations.
	Europeans.	East Indians.	Natives.	Total.	Europeans.	East Indians.	Natives.	Total.	Europeans.	East Indians.	Natives.	Total.	Europeans.	East Indians.	Natives.	Total.	Europeans.	East Indians.	Natives.	Total.		
Government of India:																						
East Indian (including the State lines worked by the Company)	75	36	3,334	3,445	347	237	8,572	9,156	87	37	31,202	31,326	465	248	17,644	12,357	974	558	54,752	56,284	1,596½	169
Eastern Bengal (including Damukdia Branch)	13	—	518	531	62	40	2,535	2,637	9	3	1,695	1,707	79	42	2,259	2,380	163	85	7,007	7,255	173	36
Oudh and Rohilkhand	26	32	691	749	47	19	1,284	1,350	20	8	5,311	5,339	63	40	3,650	3,753	156	99	10,936	11,191	546¾	80
Sind, Punjab and Delhi (including Indus Steam Flotilla)	51	25	993	1,069	118	59	2,498	2,675	33	19	5,359	5,411	176	58	4,111	4,345	378	161	12,959	13,498	676	87
Government of Madras:																						
Madras	18	45	537	600	51	378	2,149	2,578	27	83	4,086	4,196	87	391	2,914	3,392	183	897	9,686	10,766	861	116
South Indian	9	24	314	347	21	65	1,585	1,671	7	27	2,843	2,877	40	270	2,166	2,476	77	386	6,908	7,371	662¼	100
Government of Bombay:																						
Great Indian Peninsula (including Dhond-Manmad and Berar State Railways)	39	33	1,076	1,148	315	226	5,031	5,622	70	21	15,606	15,697	426	216	9,617	10,259	850	496	31,380	32,726	1,446¾	186
Bombay, Baroda and Central India (including Patri Branch)	16	30	731	777	16	29	1,922	1,967	15	5	2,761	2,781	55	187	1,792	2,034	102	251	7,206	7,559	460¾	80
Bhavnagar-Gondal	4	3	173	180	3	19	357	379	8	1	26	35	19	1	162	182	34	24	718	776	194	26
Gaekwar's	—	—	14	14	—	1	36	37	1	—	140	141	—	—	12	12	1	1	202	204	59¼	9
Government of Bengal:																						
Calcutta and South-Eastern	—	—	24	24	—	—	92	92	1	1	96	97	—	3	62	65	—	4	274	278	33	9
Nalhati	—	—	(a) 35	35	—	1	21	22	1	—	69	70	2	—	43	45	3	1	168	172	27½	7
Northern Bengal (including Steam Ferry)	5	3	164	172	7	15	644	666	6	1	1,319	1,326	27	21	596	644	45	40	2,723	2,808	230	27
Tirhut (including Steam Ferry)	(b) 3	—	131	(c)134	3	6	189	(c) 198	2	—	291	293	6	17	615	(c) 638	14	23	1,226	1,263	82	13
Patna-Gya	—	—	25	25	3	2	77	82	2	—	263	265	5	4	149	158	10	6	514	530	57	8
Kaunia-Dhurla (including Steam Ferry)	—	—	8	8	1	1	29	31	—	—	114	114	1	1	78	80	2	2	229	233	69	11
Government of North-Western Provinces and Oudh:																						
Muthra-Hathras	—	—	16	16	—	1	40	41	—	1	58	59	1	—	89	90	1	2	203	206	29	8
Cawnpore-Farrukhabad	4	5	90	99	2	2	166	170	1	—	189	190	3	1	136	140	10	8	581	599	86½	22
Central Provinces:																						
Wardha Coal	6	5	48	59	—	3	80	83	—	—	201	201	1	6	44	51	7	14	373	394	45	4
Nagpur and Chhattisgarh	2	5	92	99	5	16	142	163	3	5	511	519	16	36	678	730	26	62	1,423	1,511	97¾	13
British Burma:																						
Rangoon and Irrawaddy Valley	7	18	61	86	11	81	246	338	3	12	876	891	20	43	591	654	41	154	1,774	1,969	161	25
Resident at Hyderabad:																						
Nizam's	2	9	144	155	3	25	194	222	2	2	536	540	10	18	250	278	17	54	1,124	1,195	121	13
Resident at Mysore:—																						
Mysore (d)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Director General of Railways:—																						
Rajputana-Malwa	39	40	1,176	1,255	64	107	2,479	2,650	40	15	6,336	6,391	178	258	4,727	5,163	321	420	14,718	15,459	1,139½	142
Punjab Northern	15	9	191	215	55	43	1,430	1,528	19	1	911	931	82	10	1,083	1,175	171	63	3,615	3,849	422	63
Indus Valley and Kandahar	24	10	349	383	47	74	1,131	1,252	38	11	3,622	3,671	101	16	2,217	2,334	210	111	7,319	7,640	660	69
Total	358	332	10,935	11,625	1,181	1,450	32,979	35,610	394	253	84,421	85,068	1,863	1,887	49,685	53,435	3,796	3,922	178,018	185,736	9,936¼	1,323

(a) Represent the numerical strength of the joint staff on Nalhati and Calcutta and South-Eastern State Railways.
(b) Employed on both the Tirhoot and Patna-Gya State Railways.
(c) Includes the staff employed on both Tirhoot and Patna-Gya State Railways
(d) Return not received.

NUMERICAL RETURN of CASUALTIES, whether by Death, Resignation and Discharge or Dismissal, among the European

Railways.	General Administration, including Agency, Audit, Account, Paymaster's, Stores, Medical, Barrack, Printing, Stationery, and Police Establishments.										Traffic and Telegraph Departments.										Engineer's				
	Europeans.					East Indians.					Europeans.					East Indians.					Europeans.				
	Average Number employed.	Number of Casualties by				Average Number employed.	Number of Casualties by				Average Number employed.	Number of Casualties by				Average Number employed.	Number of Casualties by				Average Number employed.	Number of Casualties by			
		Death.	Resignation and Discharge.	Dismissal.	Total.		Death.	Resignation and Discharge.	Dismissal.	Total.		Death.	Resignation and Discharge.	Dismissal.	Total.		Death.	Resignation and Discharge.	Dismissal.	Total.		Death.	Resignation and Discharge.	Dismissal.	Total.
East Indian (including the State Lines worked by the Company).	75	—	8	—	8	37	—	9	5	14	336	4	43	14	61	231	2	51	8	61	80	1	5	2	8
Eastern Bengal (including Damukdia Branch).	12·58	—	—	—	—	—	—	—	—	—	55·75	1	14	5	20	33·25	—	7	7	14	9·25	—	1	—	1
Oudh and Rohilkhand	26·08	2	2	—	4	26·83	—	3	1	4	46·55	3	4	5	12	19·90	—	3	5	8	19·24	1	—	3	4
Sind, Punjab and Delhi (including Indus Steam Flotilla).	41	1	13	2	16	23·66	—	6	—	6	101	1	16	20	37	45	—	5	16	21	34·41	—	5	1	6
Madras	18	—	—	—	—	45·75	—	8	2	10	48·67	—	12	2	14	385·25	2	22	10	34	28·50	—	4	—	4
South Indian	10	—	1	—	1	26	—	2	—	2	21	1	—	1	2	66·25	1	4	13	18	7	—	1	—	1
Great Indian Peninsula (including Dhond-Manmad and Berar State Railways).	38	—	3	—	3	30	—	2	—	2	319	7	39	4	50	224	4	51	4	59	70	2	6	—	8
Bombay, Baroda and Central India (including Patri Branch).	16	—	1	—	1	29	—	—	—	—	17	1	—	—	1	32	—	7	—	7	15	—	4	—	4
Bhavnagar-Gondal	5	—	2	—	2	4	—	1	—	1	4	—	1	—	1	23	—	—	4	4	1	—	3	—	3
Gaekwar's	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Calcutta and South-Eastern	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—
Nalhati	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	—	—	—	—
Northern Bengal (including Steam Ferry).	5	—	—	—	—	4	—	1	—	1	7	—	—	—	—	15	1	2	8	11	6	—	—	—	—
Tirhoot (including Steam Ferry)	3	—	—	—	—	—	—	—	—	—	9	1	4	1	6	7	—	1	—	1	2	—	—	—	—
Patna-Gya	—	—	—	—	—	—	—	—	—	—	6	1	1	1	3	2	—	—	—	—	2	—	—	—	—
Kamla-Dhurla (including Steam Ferry).	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Muttra-Hathras	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Cawnpore-Farukhabad	4	—	—	—	—	5·57	—	4	—	4	2	—	—	—	—	1	—	—	—	—	1	—	—	—	—
Wardha Coal	5·08	1	1	1	3	4	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—
Nagpur and Chhattisgarh	2	—	—	—	—	3·42	—	—	—	—	4·75	1	1	1	3	16·58	—	6	3	9	2·25	—	—	—	—
Rangoon and Irrawaddy Valley	7	—	1	—	1	22	—	3	1	4	17	1	3	4	8	110	3	20	17	40	3	—	—	—	—
Nizam's	3	—	1	—	1	9	—	—	—	—	3·5	—	1	—	1	25	—	—	2	2	2	—	—	—	—
Mysore (a)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rajputana-Malwa	37·83	—	2	4	6	538·71	—	6	1	7	70	1	4	12	17	117	1	29	11	41	37·75	1	5	2	8
Punjab Northern	4	—	2	—	2	3	—	2	1	3	55	—	5	10	15	43	2	8	6	15	11	—	3	2	4
Indus Valley and Kandahar	24	—	4	1	5	10·10	—	1	3	4	46·60	3	6	3	12	74	2	13	5	20	40·9	3	6	—	9
Total Indian Railways	336·57	4	41	8	53	325·04	—	48	14	62	1,170·82	26	154	83	263	1,477·23	17	229	119	365	381·30	8	42	10	60

(a) Return not received.

(b) Includes 1 Jew.

and East Indian Employés on the Railways open for Traffic in India during the Year ending 30th September 1882.

Departments.					Locomotive and Carriage and Wagon Departments, including Steamboat Establishment.										Total.										Mean Mileage Open.	Railways.
East Indians.					Europeans.					East Indians.					Europeans.					East Indians.						
Average Number employed.	Number of Casualties by				Average Number employed.	Number of Casualties by				Average Number employed.	Number of Casualties by				Average Number employed.	Number of Casualties by				Average Number employed.	Number of Casualties by					
	Death.	Resignation and Discharge.	Dismissal.	Total.		Death.	Resignation and Discharge.	Dismissal.	Total.		Death.	Resignation and Discharge.	Dismissal.	Total.		Death.	Resignation and Discharge.	Dismissal.	Total.		Death.	Resignation and Discharge.	Dismissal.	Total.		
31	—	4	1	5	463	13	31	7	51	242	2	23	3	28	954	18	87	23	128	541	4	87	17	108	1,596½	East Indian (including the State Lines worked by the Company).
3·67	—	1	1	2	75·08	3	42	4	49	38·33	—	10	2	12	152·66	4	57	9	70	75·25	—	18	10	28	173	Eastern Bengal (including Damukdia Branch).
6·31	—	—	1	1	69·75	—	10	3	13	37·08	2	5	1	8	161·62	6	16	11	33	90·12	2	11	8	21	540½	Oudh and Rohilkhand.
19·41	—	2	1	3	187	2	57	11	70	81	1	33	5	39	358·99	4	91	34	129	168·07	1	46	22	69	671	Sind, Punjab and Delhi (including Indus Steam Flotilla).
91·25	3	10	6	18	96	—	5	1	6	404	5	9	17	31	191·17	—	21	3	24	926·25	9	49	35	93	858½	Madras.
26	1	4	1	6	38·91	1	3	—	4	255·66	2	9	10	21	76·91	2	5	1	8	373·91	4	19	24	47	662½	South Indian.
22	1	—	1	1	418	6	40	5	51	207	2	50	—	52	845	15	88	9	112	486	6	103	5	114	1,444½	Great Indian Peninsula (including Dhond-Manmad and Berar State Railways).
4	—	—	—	—	67	2	16	2	20	191	6	42	11	59	115	3	21	2	26	256	6	49	11	66	454	Bombay, Baroda and Central India (including Patri Branch).
2	—	1	—	1	20	1	8	4	13	5	—	2	2	4	37	1	14	4	19	34	—	4	6	10	194	Bhavnagar-Gondal.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	—	—	—	—	59½	Gaekwar's.
1	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—	4	—	—	—	—	33	Calcutta and South-Eastern.
—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	3	—	—	—	—	1	—	—	—	—	27½	Nalhati.
1	—	—	—	—	32	—	4	1	5	24	—	2	1	3	50	—	4	1	5	44	1	5	9	15	230	Northern Bengal (including Steam Ferry).
—	—	—	—	—	9	—	—	3	3	18	—	1	1	2	23	1	4	4	9	25	—	2	1	3	82	Tirhoot (including Steam Ferry).
—	—	—	—	—	6	—	1	—	1	4	—	—	—	—	14	1	2	1	4	6	—	—	—	—	67	Patna-Gya.
—	—	—	—	—	1	—	—	—	—	1	—	—	—	—	2	—	—	—	—	2	—	—	—	—	69	Kamia-Dhurla (including Steam Ferry).
1	—	—	—	—	1	—	1	—	1	—	—	—	—	—	1	—	1	—	1	2	—	—	—	—	29	Muttra-Hathras.
—	—	—	—	—	3	—	2	—	2	1	—	1	—	1	10	—	2	—	2	7·57	—	5	—	5	86½	Cawnpore-Farukhabad.
—	—	—	—	—	1·58	—	—	1	1	6	—	1	1	2	6·66	1	1	2	4	13	—	1	1	2	45	Wardha Coal.
5	—	—	1	1	16	—	4	4	8	36	—	7	3	10	25	1	5	5	11	57·58	—	13	7	20	97½	Nagpur and Chhattisgarh.
12	—	1	1	2	31	4	3	8	15	34	—	2	4	6	58	5	7	12	24	178	3	26	23	52	161	Rangoon and Irrawaddy Valley.
2	—	—	—	—	15	—	3	2	5	18	—	2	1	3	23·50	—	5	2	7	54	—	2	3	5	121	Nizam's.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Mysore (*a*).
12·66	—	1	—	1	178	6	39	19	64	258	2	57	9	68	328·58	8	50	37	95	426·37	3	93	21	117	1,139½	Rajputana-Malwa.
2	—	1	—	1	92·83	2	45	6	53	19·83	—	11	5	16	162·83	2	54	18	74	67·83	1	22	12	35	408½	Punjab Northern.
7·10	2	—	—	6	97·80	—	8	5	13	16	—	1	2	3	209·30	6	24	9	39	107·20	4	19	10	33	660	Indus Valley and Kandahar.
249·40	5	29	14	48	1,920·95	40	322	86	448	1,899·90	22	268	78	368	3,805·22	78	559	187	824	3,947·15	44	574	225	843	9,906½	Total Indian Railways.

Employment of natives as drivers and shunters.

66. The following statement gives the number of Native drivers and shunters employed on the different railways during the years 1881 and 1882.

It will be seen that the number of Natives who qualify themselves for these responsible positions is steadily increasing, and the reports received show that the services of this class of employés are much appreciated by the Locomotive Superintendents of some of the principal railways.

67. On the East Indian Railway 250 Native drivers and shunters are employed in working goods and ballast trains on certain sections of the main line, as well as passenger trains on all the branch lines of the undertaking.

The men are required to be able to read and write in one of the vernaculars, and to acquire a knowledge of the time table in addition to passing a technical examination at head-quarters.

Daily instruction is given in the Native adult schools at the various running sheds after working hours, and to show that these schools are appreciated by the men, Mr. Campbell, the Locomotive Superintendent, instances the fact that they carried away Rs. 140 in prizes during the half-year ending 30th June 1882. Mr. Campbell estimates the saving effected by the employment of Native drivers, from April 1875 to December 1882, at over 25 lakhs of rupees.

68. On the Bombay, Baroda and Central India Railway the Parsee employés give satisfaction as drivers and shunters.

69. On the Oudh and Rohilkhand Railway the system has for some years been worked successfully, and the reports received from the Sind, Punjab and Delhi, Punjab Northern, and Indus Valley and Kandahar Railways show that in the Punjab the training of Natives for such employment is making satisfactory progress.

70. Bengal Provincial Railways.—The Government of Bengal considers the progress made in this direction on its provincial lines satisfactory, and says that experience has shown that, while the employment of Native drivers results in a large saving of wages, they are more wasteful of fuel than Europeans, and that they have yet to show that in positions of danger their judgment and presence of mind will stand them in good stead; it is therefore still considered premature to employ them on fast mail trains. They should, however, it is added, be employed to the fullest extent on goods trains.

ABSTRACT STATEMENT showing the NUMBER of NATIVE DRIVERS and SHUNTERS employed on the several RAILWAYS during 1881 and 1882.

Local Government or Administration.	Name of Railway.	Number of Native Drivers employed.		Number of Native Shunters employed.		Total Number of Native Drivers and Shunters employed.	
		1881.	1882.	1881.	1882.	1881.	1882.
Consulting Engineer, Calcutta	East Indian	117	125	118	125	235	250
	GUARANTEED.						
Madras	Madras	Nil.	1	2	3	6	4
Madras	South Indian	9	12	17	19	23	31
Bombay	Great Indian Peninsula	53	60	Nil.	Nil.	53	60
Bombay	Bombay, Baroda, & Central India	23	33	Nil.	Nil.	23	33
Consulting Engineer, Calcutta	Eastern Bengal	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.
" " Lahore	Sind, Punjab, and Delhi	3	10	37	36	40	46
" " Lucknow	Oudh and Rohilkhand	28	29	38	40	66	69
	IMPERIAL STATE.						
Director General of Railways	Punjab Northern	7	11	2	5	9	16
Director General of Railways	Indus Valley and Kandahar	7	8	9	12	16	20
Director General of Railways	Rajputana-Malwa	6	13	27	31	33	44
Central Provinces	Wardha Coal	Nil.	Nil.	2	2	2	2

ABSTRACT Statement showing the NUMBER of NATIVE DRIVERS and SHUNTERS employed on the several RAILWAYS during 1881 and 1882—*continued.*

Local Government or Administration.	Name of Railway.	Number of Native Drivers employed.		Number of Native Shunters employed.		Total Number of Native Drivers and Shunters employed.	
		1881.	1882.	1881.	1882.	1881.	1882.
	PROVINCIAL STATE.						
Bengal	Calcutta and South-Eastern	8	7	—	—	8	7
	Nalhati						
	Northern Bengal	3	5	8	8	11	13
	Tirhoot	Nil.	2	4	4	4	6
	Patna-Gya						
North-Western Provinces and Oudh	Muttra-Hathras	4	4	Nil.	Nil.	4	4
	Cawnpore-Farukhabad	7	9	Nil.	Nil.	7	9
Central Provinces	Nagpur and Chhattisgarh	Nil.	2	1	2	1	4
British Burma	Rangoon and Irrawaddy Valley	Nil.	Nil.	4	4	4	4
	NATIVE STATES.						
Bombay	Bhopal	Worked by the G. I. P. R. Co.					
	Bhavnagar-Gondal	Nil.	Nil.	Nil.	2	—	2
	Gaekwar of Baroda's	Worked by the B. B. & C. I. R. Co.					
Hyderabad	Nizam's	3	4	Nil.	2	3	6
Mysore	Mysore	—	—	—	—	—	—

71. It has been suggested by Mr. Rendel, Consulting Engineer at the India Office, that locomotives may be made capable of performing an increased amount of work by attaching two or more drivers to one engine. System of attaching two or mor drivers to one engine.

Under the ordinary system of attaching one driver to each engine, the working capacity of the engine is limited to that of its driver, or to about eight hours per diem, whereas with good water it might, with advantage, be kept in steam and at work continuously for two or three days at a time, and this could be effected by working with relays of drivers.

72. The system has been tried on several lines, and on some, notably the Oudh and Rohilkhand, appears to have been successful. But the majority of the locomotive superintendents seem at present disinclined to adopt the proposal.

The principal objections urged against it are—

(1.) That the quality of the water on many lines will not admit of the engines being kept continuously under steam for long periods.

(2.) That different sections of some lines require different engines owing to the varying gradients and descriptions of fuel used.

(3.) That damage is anticipated to the engine owing to the division of responsibility for the care of it.

(4.) On some lines the paucity of trains and irregularity of the traffic is urged as rendering the proposal unsuitable.

73. It is, however, believed that the system has been successful in some cases in America, and the results of further experiments, now being made on some of the Indian railways, will be awaited with interest.

74. The recommendations made by the commission appointed to investigate and report upon the systems of police in force on the East Indian Railway are now under the consideration of the Government of India. Railway police.

The commission recommend generally that all arrangements for watch and ward should be left to the Railway Administration, and that work connected with the maintenance of law and order and the detection and prosecution of crime should be carried out by a specially organised Government Railway Police, distinct from the ordinary district police of the country.

75. The attached statement shows the strength and cost of police on all the open lines of railway in India, and the amount of the payments made in compensation for theft in 1882.

STATEMENT showing the STRENGTH and COST of POLICE on all the open lines of Railway in India, and the Amount of Compensation Payments due to theft, for the year 1882.

Railway.	Sub-ordinate Officers.	Con-stables and Men.	Salaries and fixed Allow-ances of Officers.	Office Expenses and Travel-ling Al-lowances.	Salaries of Sub-ordinate Officers and Men.	Total Cost of Force per annum.	Cost of Force per mile of railway.	Compen-sation Payments due to Theft or Care-lessness of Police.	Compen-sation Payments per mile of railway.	Length of railway open for traffic.
	No.	No.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Miles.
East Indian (includes State lines worked by the Company).	134	900	1,21,021		93,704	2,14,725	134·53	511	0·32	1,596
GUARANTEED.										
Madras	8	239	4,320	4,254	27,302	35,876	41·67	1,128	1·31	861
South Indian	—	—	—	Worked by the Government Police.				—	—	—
Great Indian Peninsula (includes Dhond-Manmad and Berar State Railways).	16	803	17,366	(a) 9,441	1,38,672	(b)1,65,479	113·52	5,909	4·05	1,457½
Bombay, Baroda, and Central India	51	387	20,215	7,431	58,791	86,437	166·22	1,857	3·57	520
Eastern Bengal	20	254	5,253	2,278	20,728	28,259	146·41	—	—	(c) 192½
Punjab and Delhi	33	228	8,400	(d) 6,661	40,371	55,432	100·06	1,927	2·91	554
Sind	12	91	—	59	16,118	16,177	148·41			109
Oudh and Rohilkhand	4	306	—	2,128	25,429	27,557	50·38	—	—	547
IMPERIAL STATE.										
Punjab Northern	56	360	—	(e) 5,911	46,440	52,351	122·89	5,861	13·76	426
Indus Valley and Kandahar	48	352	7,038	4,681	42,194	53,913	82·56	6,697	10·26	653
Rajputana-Malwa	86	403	15,000	(f)15,516	(g) 63,609	94,125	82·60	2,380	2·08	1,139½
Wardha Coal	1	11	—	42	969	1,011	22·46	—	—	45
PROVINCIAL STATE.										
Calcutta and South-Eastern	—	11	—	—	1,865	1,865	43·37	—	—	43
Nalhati	—	1	—	4	84	88	3·23	—	—	27½
Northern Bengal	1	74	—	—	3,137	3,137	35·38	185	0·80	230
Kaunia-Dhurla	—	12	—	—	984	984	30·75	13	0·41	(h) 32
Tirhoot	—	47	—	—	3,522	3,522	44·58	—	—	79
Patna Gya	—	20	—	—	1,808	1,808	31·72	—	—	57
Muttra-Hathras	1	12	40	93	926	1,059	36·52	6	0·21	29
Cawnpore-Farukhabad	4	28	—	—	2,616	2,616	30·24	—	—	86½
Nagpur and Chhattisgarh	11	71	2,796	360	5,913	9,069	60·87	—	—	149
Rangoon and Irrawaddy Valley	7	27	3,000	1,276	(i) 7,128	11,404	69·96	—	—	163
NATIVE STATES.										
Bhavnagar-Gondal	17	62	4,019	775	5,408	10,202	52·59	—	—	194
Nizam's	2	92	—	—	13,416	13,416	110·88	11	0·09	121
Mysore (j),	—	24	—	—	—	—	—	—	—	85½

(a) Includes Rs. 8,984 on account of clothing. (b) Includes the portion of cost of Police Force charged to Government.
(c) Includes the Damookdia Branch and the Ranaghat Section of the Bengal Central Railway.
(d) Includes Rs. 3,277 on account of contingencies and clothing, and Rs. 600 on account of Railway Company's contribution towards pension.
(e) Includes annual contingencies, clothing, &c. (f) Includes the cost of clothing.
(g) Includes the cost of Police chargeable to Bombay, Baroda, and Central India Railway on account of Sabarmati transhipping goods yard.
(h) Exclusive of steamer service. (i) Includes Rs. 486 on account of clothing. (j) The cost of the Police is borne by the Civil Department.

East Indian Railway volunteers.

76. The reports of the Railway Volunteer Corps are most satisfactory, and if proof were wanted that they are ready for any emergency, it would be found in the fact that, in July 1882, the Agent of the East Indian Railway, through the Consulting Engineer at Calcutta, offered to supply a contingent of fully-equipped Railway Volunteers to take charge of railway operations in Egypt. To show the feasibility of his proposals, the Agent stated that it was then the slack season for traffic, and that, if the navigation of the Suez Canal were stopped, railway traffic would fall off materially, and a large number of hands could be spared.

For this spirited offer, the Agent received the thanks of the Government of India; and was told that, although there was no present prospect of the services of a special technical body of railway experts being required with any expeditionary force that might be despatched to Egypt, the offer made would be borne in mind, in the event of any unforeseen contingency arising in which their services could be advantageously utilised.

77. The following abstract statement gives the enrolled strength and the number of efficients in each of the Railway Volunteer Corps :—

EXTRACT from the DISTRIBUTION of the ARMY in BENGAL, dated 1st April 1883.

Corps	Enrolled strength.	Efficients.				Non-efficients.	Sergeant Instructors, 1st and 2nd Class.	Drill Instructors.	Head Quarters.	Remarks.
		Officers.	Non-commissioned Officers.	Volunteers.	Total.					
3rd or Sind, Punjab, and Indus Valley Railway Volunteer Rifle Corps.	750	27	75	612	714	36	5 (1st class), 4 (2nd class).	—	Lahore.	
Eastern Bengal Railway Volunteer Rifle Corps.	155	8	28	117	153	2	2 (1st class) -	—	Calcutta.	
East Indian Railway Volunteer Rifle Corps.	1,090	54	136	897	1,087	3	13 (1st class) -	—	Jamalpore -	1 Armourer Sergeant attached to the Corps.
Tirhoot State Railway Volunteer Rifle Corps.	21	2	7	12	21	—	1 (1st class) -	—	Somastipur.	
Northern Bengal Railway Volunteer Rifle Corps.	296	12	30	214	256	40	4 (1st class) -	—	Darjeeling.	
Rangoon and Irrawaddy State Railway Volunteer Rifle Corps.	178	6	17	133	156	22	2 (1st class) -	1	Rangoon.	
Great Indian Peninsula Railway Volunteer Rifle Corps.	932	32	88	621	741	191	9 (1st class) -	—	Bombay.	
Bombay, Baroda, and Central India Railway Volunteer Rifle Corps.	209	7	15	98	120	89	2 (1st class) -	—	Do.	
Rajputana-Malwa Railway Volunteer Rifle Corps.	582	19	—	563	582	—	—	—	Ajmere.	

78. The experience of the last three years has shown that certain amendments of the Indian Railway Act of 1879 are desirable. Act IV. of 1883.

These have been embodied in Act IV. of 1883, which received the assent of the Governor General on the 16th February 1883, and is printed as an appendix to this report.

But, as noticed in the report for 1881–2, owing to the contemplated extensions of railways in India by private enterprise, a complete recast of the Indian Railway Act will probably have to be made at no distant date.

RAILWAY SCHOOLS.

79. The general question of European education in India has received much attention during the past year.

In October 1881, a Committee was appointed by the Government of India to draft a code for regulating the conduct of European education in the Bengal Presidency, so far as this is dependent upon Government support. The draft code prepared by the Committee has now been published and accepted by the Government of India. It lays down the principles and conditions upon which Government grants will be administered by the Education Department of each Local Government or Administration.

The object of these grants is to aid local exertion in maintaining efficient schools for European children, and training teachers for such schools.

The term European is used to signify any person of European descent, pure or mixed, who retains European habits and modes of life, and Government aid will be given in the shape of monthly and annual grants, conditional upon the attendance and proficiency of the scholars, the qualification of the teachers, and the state of the schools.

It is understood that railway schools, fulfilling the required conditions, will be eligible for these grants, and the system now to be introduced should do much to promote the education of European children.

80. Proposals have been received, and are now under consideration, for the establishment of a joint railway school on Mount Abu for the use of the children of the European employés of the Rajputana-Malwa, and Bombay, Baroda, and Central India Railways. Rajputana-Malwa Railway.

A railway school has been opened at Bandikui on the Rajputana line, and the manager proposes to establish one at Ajmere in lieu of the existing diocesan school at that place.

Punjab. Northern State Railway.

81. On the Punjab Northern Railway, the railway children are sent to a central school at Rawalpindi, to which the railway contributes Rs. 100 per month from revenue, in addition to the fees paid by the children's parents.

The climate at this station is very good for nine months in the year, and the manager thinks the parents prefer this arrangement to sending their children to a hill school at Murree.

Sind, Punjab and Delhi Railway.

82. The Sind, Punjab, and Delhi Railway School at Mussoorie was opened in August 1877, and, owing to additions made two years ago, 45 children can now be accommodated in place of 27 as was previously the case.

The Government Inspector reports favourably of the school, and says that the grant-in-aid of Rs. 50 per mensem from the North-Western Provinces Government is well deserved, but he brings prominently to notice the necessity of separating boys and girls, who are at present taught together, and lodged under the same roof.

East Indian Railway.

83. The report on the East Indian Railway aided schools for the half-year ended 31st December 1882 shows that there were in all 25 schools, European and Native, aided by the Company.

	Rs.
The monthly grants made to these schools by the railway amounted to	1,048
Those made by Government to	1,002
And the scholars' fees to	1,648

The total number of pupils on the rolls and the average daily attendance have been—

	Children.	Apprentices and Workmen.	Total.
On the rolls	1,039	1,514	2,553
Average daily attendance	841	606	1,447

84. At the native adult schools of the Locomotive Department the number of pupils on the rolls was 1,421, and the average number daily present during the half year, 546. The number of these schools was eighteen, the monthly grant paid by the Company amounted to Rs. 180, and the schooling fees averaged Rs. 59.

85. The Government of India and the Board of Directors have accorded general approval to the proposals made by the agent of the East Indian Railway Company for the establishment of a hill school at Mussoorie with accommodation for 100 children.

The funds available for the purpose are—

	Rs.
Savings Bank Reserve Fund	2,00,000
Fine Account	1,55,172
Total	Rs. 3,55,172

As it is improbable that the school will be entirely self-supporting, it is proposed to retain Rs. 2,00,000 as a reserve fund, the interest on which will be employed to defray the salaries of the school staff.

Of the balance, Rs. 1,50,000 will be appropriated for the purchase of the estate, construction of schools and connected buildings for 60 boys and 40 girls, and for the water supply.

Negotiations have been instituted by the Company for the purchase of the land.

STORES.

State Railway Stores Department.

86. The general administration of the Railway Stores Department has during 1882–83 been immediately under the control of the Director General of Railways, as in the preceding year; the system continues to work satisfactorily. It seems probable, however, that a modification of the present procedure must before long come into force, and that, as the several systems of railways now worked by the State are steadily expanding, it will be necessary sooner or later to allow the manager of each system to indent direct on England for the stores he requires for ordinary consumption, without passing his indents, as at present, through a somewhat circuitous channel.

Port Storekeepers.

87. The question of continuing to keep up the existing Port Storekeepers' establishments at Bombay and Karachi has been under consideration. It is hoped that it will shortly be possible to considerably reduce their cost, if not to abolish them altogether, as the bulk of the Store Reserves, accumulated at these two ports three years ago, are being rapidly used up, and it may be found practicable to carry on the landing and despatch of State Railway Stores through other local authorities.

88. The total expenditure for State Railway Stores purchased in England during the last 12 months has been—

	£
A. Bridge work	50,207
B. Engineer's plant	1,395
C. Workshop machinery	22,013
D. Ballast and permanent way	500,895
E. Rolling stock	351,014
F. Station materials and fencing	89,374
G. Tools and stores	18,471
Total	£1,033,369

89. The total expenditure by the Port Storekeepers for Railway Stores purchased locally during the same period has been—

	Rs.
Calcutta	3,73,895
Bombay	12,07,420
Karachi	58,696
Total	Rs. 16,40,011

90. The cost of the several establishments maintained by the Port Storekeepers has been—

	Rs.	
Calcutta	26,623	(*a*)
Bombay	29,276	
Karachi	21,338	(*b*)
Total	Rs. 77,237	

(*a*) Includes Rs. 3,600 for remuneration to East Indian Railway officials for work in connexion with State Railway Stores.

(*b*) Includes Rs. 1,538 for moiety of cost of stores establishment employed at Kotri under the Indus Valley Railway authorities.

91. A considerable quantity of English Stores have during the year been transferred to the Southern Mahratta Railway Company. The total debits raised against the Company for these stores have been—

	Rs.
Productive Public Works Stores - - -	3,32,630
Frontier - - - - - -	9,12,906
Total - - - -	Rs. 12,49,536

92. The Number of ships employed in bringing out State Railway Stores between 1st January 1882 and 31st December 1882 was—

	No.	Tons of Goods shipped.
To Calcutta - - - - -	53	11,201
„ Bombay - - - - -	82	20,948
„ Karachi - - - - -	37	9,845
„ Madras - - - - -	28	4,377
„ Rangoon - - - - -	31	17,333
Total - - -	231	63,704

No vessels were lost during the year, and no charges for insurance had to be distributed over the stores imported.

93. The interesting table given in Mr. Juland Danvers' last report, which shows the shipments from the commencement of operations and the cost of the goods shipped for both Guaranteed and State Railways, cannot be supplemented for the year 1882 in this report, as the necessary information is not available for the East Indian and Guaranteed lines.

Store Reserves.

94. Large reductions have been made during the past year in the Store Reserves at the three ports, as shown in the accompanying table :—

—	Port Stores Depôt.	Balance on 1st January 1882.	Balance on 31st December 1882.	Decrease.	Increase.	Remarks.
		£	£	£	£	
Stores for Productive Railways - -	Calcutta -	63,710	65,908	—	2,198	The conversion of "Indian" into "English" currency has here been made on the basis of 10 rupees being equal to 1*l*.
	Bombay -	42,118	26,045	16,073	—	
	Karachi -	59,744	36,795	22,949	—	
Stores for Frontier Railways - -	Bombay -	102,085	1,369	100,716	—	
	Karachi -	368,407	89,537	278,870	—	
	Total -	636,064	219,654	418,608	2,198	
			Net decrease -		416,410	

95. The book value of the balance of the surplus stores taken over from the East Indian Railway Company in 1881 has now been reduced to Rs. 7,63,561, consisting principally of— East Indian Railway surplus stores.

(i) Traversers, turntables, and obsolete station machinery (about Rs. 2,50,000),

(ii) Engineering plant suitable for construction work only (Rs. 1,00,000),

(iii) Iron roofing (Rs. 70,000),

(iv) Iron sleepers, &c. (Rs. 30,000),

(v) Tools (Rs. 1,00,000),

(vi) Spare bridge ironwork (Rs. 50,000),

the balance being a miscellaneous collection of stores and apparatus. The further disposal of these stores will be dealt with by the Port Storekeeper, Calcutta, and the bulk of what is not likely to be required for State Railways within the next five years will be sold by auction. It is, however, hoped that a considerable portion of the items included in (ii), (iii), (v), and (vi), may be shortly used up in the construction of new broad gauge railways.

96. The additions to rolling stock during the year have been as follows:— Rolling stock.

Name of Railway.	Stock on 1st January 1882.			Additions of "New Stock" during year 1882.			Stock on 1st January 1883.			Stock under rejection on 1st January 1883.			
	Locomotives.	Coaching Vehicles.	Goods Vehicles.	Locomotives.	Coaching Vehicles.	Goods Vehicles.	Locomotives.	Coaching Vehicles.	Goods Vehicles.	Locomotives.	Coaching Vehicles.	Goods Vehicles.	
Indus Valley	101	365	2,598	20	109	136	140	440	2,689	—	15	13	5′ 6″ gauge.
Punjab Northern	107	234	1,208	—	83	—	87	355	1,250	30	10	—	
Calcutta and South-Eastern	8	38	266	4	—	10	12	38	277	—	—	30	
Wardah Coal	5	15	154	—	—	60	6	15	214	—	9	10	
Other lines	13	140	142	—	—	—	13	127+9	133+11	—	3	—	
Total	234	792	4,368	24	192	206	258	984	4,674	30	37	53	
Rajputana-Malwa	278	951	4,038	28	82	920	301	1,028	4,914	15	89	370	Metre gauge.
Northern Bengal	36	152	773	—	1	—	36	153	773	—	23	60	
Tirhoot	14	69	302	10	6	49	24	75	350	—	36	77	
Nagpur and Chhattisgarh	12	62	367	4	10	79	16	66	452	—	11	2	
Bhavnagar-Gondal	20	98	468	—	7	78	20	105	546	—	20	6	
Mysore	7	41	77	9	40	103	14	79	150	1	8	8	
Other lines*	28	162	519	—	—	—	29	164	517	—	—	13	
Total	395	1,535	6,544	51	146	1,229	440	1,670	7,702	16	187	536	

97. On the next page will be found a table in which the locomotive and vehicle stock belonging to the various broad and narrow gauge lines of railway at the close of the year 1882 is compared with the number in use at the close of 1881.

* Excluding from figures for 1882, 6 engines, 7 coaching, and 75 goods vehicles sold to the Southern Mahratta Railway Company.

TABLE showing the NUMBER of LOCOMOTIVES and VEHICLES owned by the various LINES.

Railways.	Locomotives.		Coaching Vehicles.		Goods Vehicles.		Brake Vans.		Total Number of Vehicles.		Remarks.
	Number on 31st December 1881.	Number on 31st December 1882.	Number on 31st December 1881.	Number on 31st December 1882.	Number on 31st December 1881.	Number on 31st December 1882.	Number on 31st December 1881.	Number on 31st December 1882.	Number on 31st December 1881.	Number on 31st December 1882.	
BROAD GAUGE.											
East Indian (*a*)	539	533	938	1,077	7,934	8,551	295	310	9,167	9,938	
GUARANTEED.											
Madras	157	157	453	459	2,771	2,821	138	138	3,362	3,418	
Great Indian Peninsula (*b*)	438	440	938	938	7,815	7,815	457	458	9,210	9,211	
Bombay, Baroda, and Central India (*c*).	98	103	355	356	2,727	2,888	49	63	3,131	3,307	
Eastern Bengal (*d*)	48	48	175	175	953	953	51	51	1,179	1,179	
Sind, Punjab, and Delhi	159	159	487	506	3,388	3,388	109	109	3,984	4,003	
Oudh and Rohilkhand	125	125	275	277	3,086	3,086	57	70	3,418	3,433	
IMPERIAL STATE.											
Punjab Northern	109	*89	135	237	1,208	1,250	98	118	1,442	1,605	*Includes 2 engines on the Construction Section.
Indus Valley and Kandahar.	101	140	292	315	2,598	2,689	73	125	2,963	3,129	
Wardha Coal	5	6	9	9	154	214	6	6	169	229	
PROVINCIAL STATE.											
Calcutta and South-Eastern.	8	12	30	30	266	277	8	8	304	315	
Patna-Gya	1	1	49	49	20	20	5	5	74	74	
NATIVE STATES.											
Nizam's	10	10	61	56	120	111	22	17	203	184	
Total Broad Gauge	1,798	1,853	4,127	4,484	33,040	34,063	1,368	1,478	38,605	40,025	
METRE GAUGE.											
GUARANTEED.											
South Indian (*e*)	120	120	457	446	1,575	1,584	69	90	2,101	2,120	
IMPERIAL STATE.											
Rajputana-Malwa (*f*)	273	301	734	805	4,039	4,914	217	223	4,990	5,942	
Punjab Northern (Salt Branch).	12	12	24	24	223	223	10	10	257	257	
PROVINCIAL STATE.											
Nalhati (*g*)	4	4	10	10	†24	24	—	—	34	34	†One covered goods waggon used as a brake van.
Northern Bengal	36	36	122	123	773	773	30	30	925	926	
Kaunia-Dhurla (*h*)	4	4	8	10	36	40	4	4	48	54	
Tirhoot	14	24	49	55	302	350	20	20	371	425	
Muttra-Hathras	5	6	28	28	75	75	4	4	107	107	
Cawnpore-Farukhabad	11	11	88	88	219	219	10	10	317	317	
Nagpur and Chhattisgarh	12	16	44	48	367	452	18	18	429	518	
Rangoon and Irrawaddy Valley.	31	31	169	169	636	906	30	30	835	1,105	
NATIVE STATES.											
Bhavnagar-Gondal	20	20	76	83	468	546	22	22	566	651	
Gaekwar of Baroda's (*h*)	6	6	27	27	187	187	6	6	220	220	
Mysore	7	14	36	72	77	150	5	7	118	229	
Total Metre Gauge‡	541	591	1,827	1,941	8,754	10,192	435	464	11,016	12,597	‡Excludes (*g*) and (*h*).

(*a*) Includes Sindia, Dildarnagar-Ghazipur, and the Barh branch of the Tirhoot State Railway.
(*b*) Includes Dhond and Manmad, Bhopal, and Berar State lines. (*c*) Includes Patri Branch.
(*d*) Includes Poradaha Section, Northern Bengal State Railway, and Ranaghat Section, Bengal Central Railway.
(*e*) Includes the Pondicherry Railway. (*f*) Includes the Muttra-Achnera Railway.
(*g*) Four feet gauge. (*h*) Two feet six inch gauge.

CAPITAL.

98. Excluding the assisted Companies for which complete accounts are not received, the total Capital expenditure on Indian Railways up to the 31st December 1882, including lines under construction, amounted to £140,936,776, which may be thus appropriated :—

	£
To Guaranteed lines	67,228,745*
To East Indian Railway	34,720,622
To State lines	35,991,676†
To Lines in Native States	2,995,733
	£140,936,776

The Indian expenditure on the Guaranteed lines is converted into sterling at the contract rates of exchange; that on the East Indian Railway and State lines at 2*s.* the rupee.

The expenditure on the East Indian Railway has been arrived at by taking the outlay on construction, as given in the accounts for the half year ended 31st December 1879, and adding thereto the expenditure shown in the accounts of subsequent half-years.

99. On the next page will be found a statement giving the total Capital outlay, and the outlay per mile open (exclusive of Steamboat service and Suspense accounts) for the several lines of Railway open for traffic.

It will be seen that the average cost per mile of all open line excluding Steamboat service and Suspense accounts, is Rs. 1,36,896.

100. The following allotments have been made from the Productive Public Works grant for State Railways during the year 1883–4 :— Budget allotments.

	Rs.	Rs.
India :—		
Rajputana-Malwa Railway	26,92,000	
Sindia Railway	2,00,000	
Reserve	28,57,000	
Miscellaneous	23,08,000	
		80,57,000
Central Provinces :—		
Wardha Coal Nagpur and Chhattisgarh	—	3,64,000
British Burmah		37,25,000
Bengal :—		
Northern Bengal Tirhoot Railway and extensions Patna-Gya Nalhati Calcutta and South-Eastern Dacca-Mymensingh Ranaghat-Bhagwangola extension Mozufferpore-Hajipur	—	52,99,000
North-Western Provinces and Oudh :—		
Cawnpore-Farukhabad Ghazipur-Dildarnagar Hathras-Muttra-Achnera Bareilly-Pilibhit	—	13,55,000
Punjub :		
Indus Valley Railway	24,00,000	
Punjab Northern Railway	3,70,000	
Amritsar-Pathankot	22,30,000	
		50,00,000
Bombay :—		
Dhond and Manmad		1,50,000
Total		Rs. 239,50,000

* Includes outlay on northern extension, Oudh and Rohilkhand Railway, 61,525*l.*

† Includes State outlay on Patri Branch, Rs. 8,08,405, and on Warora Colliery, Rs. 7,04,710.

STATEMENT showing the TOTAL COST of each RAILWAY on 31st December 1882, and the average cost per mile.

Railway.	Length of line open on 31st December 1882.	Total Capital outlay to 31st December 1882 (exclusive of Steam-boat Service and Suspense).	Average cost per mile (exclusive of Steam-boat Service and Suspense).	Total Capital outlay to 31st December 1882.
	Miles.	Rs.	Rs.	Rs.
East Indian	1,506·77	33,77,59,915	2,24,162	34,72,06,225
GUARANTEED.				
Madras	860·86	11,15,44,508	1,29,573	11,40,56,960
South Indian	655·00	4,30,21,429	65,681	4,53,57,677
Great Indian Peninsula	1,288·25	25,22,49,649	1,95,808	25,75,91,252
Bombay, Baroda and Central India	460·93	*8,55,40,307	1,85,582	*8,88,24,344
Eastern Bengal	159·63	3,32,13,066	2,08,063	3,55,57,780
Sind, Punjab and Delhi	663·51	11,21,50,810	1,69,026	11,99,58,623
Oudh and Rohilkhand	546·85	5,87,01,518	1,07,345	6,42,88,929
IMPERIAL STATE.				
Punjab Northern	418·75	6,10,71,973	1,45,843	6,30,28,341
Indus Valley and Kandahar	652·60	7,80,32,391	1,19,572	8,13,75,724
Rajputana-Malwa	1,115·55	8,74,13,893	78,359	9,21,17,606
Sindia	74·42	87,35,891	1,17,386	87,63,714
Wardha Coal	45·00	†51,62,669	1,14,726	†53,09,476
Dhond-Manmad	145·75	99,25,269	68,098	99,25,416
PROVINCIAL STATE.				
Calcutta and South-Eastern	43·00	67,20,634	1,56,294	68,06,612
Nalhati	27·25	3,07,780	11,295	3,27,613
Northern Bengal	243·00	2,01,06,785	82,744	2,09,26,406
Kaunia-Dhurla	32·28	7,19,935	22,303	8,43,753
Tirhoot	82·00	61,09,775	74,509	78,08,236
Patna-Gya	57·20	37,97,742	66,394	39,73,373
Muttra-Hathras	29·00	10,47,748	36,129	10,82,927
Muttra Achnera	22·75	6,26,164	27,524	6,27,781
Cawnpore-Farukhabad	86·50	31,31,013	36,197	32,08,969
Dildarnagar-Ghazipur	12·00	6,24,104	52,009	7,22,994
Nagpur and Chhattisgarh	149·00	87,95,174	59,028	90,64,388
Rangoon and Irrawaddy Valley	161·00	1,26,82,765	78,775	1,33,09,835
NATIVE STATES.				
Bhopal	11·50	4,45,863	38,771	4,45,863
Bhavnagar-Gondal	193·00	83,60,328	43,318	86,75,711
Gaekwar of Baroda	58·85	12,47,530	21,198	12,76,040
Khamgaon	8·00	4,82,570	60,321	4,91,164
Amraoti	6·00	4,34,338	72,390	4,44,651
Nizam's	117·10	1,21,86,480	1,04,069	1,22,27,794
Mysore	85·75	37,10,516	43,271	44,59,270
ASSISTED COMPANIES.				
Darjeeling-Himalayan	50·00	23,56,112	47,122	‡23,56,112
Total	10,069·05	1,37,84,16,644	1,36,896	1,43,24,41,559

* Includes Rs. 8,08,405 State outlay on Patri Branch.

† Excluding colliery.

‡ Return does not show whether these figures include Suspense accounts.

N.B.—This statement does not include mileage of, nor Capital outlay on, the Bengal Central, Assam, Pondicherry, Deoghur and Jodhpur Railways, for which accounts are not received.

The total available for expenditure under this head is made up as follows :—

	Rs.
Portion of Productive Public Works grant allotted to Railways -	1,80,00,000
Add—Amount brought forward from 1882–83 - - -	59,50,000
Total - Rs.	2,39,50,000

101. In addition to the above the following expenditure has been sanctioned on works in connexion with Railways not classed as Productive :—

	Rs.	Rs.
Imperial :—		
Establishment, Reserve and Miscellaneous - - - -		6,22,500
Railway Surveys in Assam - - - - -		68,000
,, ,, Bengal - - - - -		1,34,500
,, ,, Bombay - - - - -		50,000
Total Imperial -		Rs. 8,75,000
Provincial :—		
Bengal :—		
Railway Construction - - - -	7,82,600	
,, Surveys - - - -	1,02,000	
Establishment and Reserve - - -	89,200	
		9,73,800
North-Western Provinces and Oudh :—		
Railway Construction - - - -	32,20,500	
,, Surveys - - - -	35,000	
		32,55,500
Total Provincial -		Rs. 42,29,300
Total Imperial and Provincial -		Rs. 51,04,300

102. Under Protective Works the following allotments have been made for Railways :—

	Rs.	Rs.
Central Provinces Surveys - - - - -		50,000
North-Western Provinces and Oudh Construction -		20,32,000
Punjab Construction - - - - -		56,02,000
Madras Surveys - - - - -	50,000	
,, Construction - - - -	25,50,000	
		26,00,000
Bombay Surveys - - - - - -		47,000
Stores - - - - - - - -		—6,73,000
Reserve - - - - - - -		4,67,000
Total - Rs.		1,01,25,000
And under Frontier Railways :—		
Kandahar - - - - - - -		2,00,000
Punjab Northern, Northern Section - - -		7,00,000
Stores - - - - - - - -		—2,25,000
Total -		Rs. 6,75,000

103. For the East Indian Railway, Rs. 42,40,000 have been allotted for expenditure in 1883–84.

Capital raised by Companies.

104. The total amount of capital raised by the various Guaranteed and Assisted Railway Companies amounted, on the 31st December 1882, to 70,230,035*l.*,* of which—

£			
56,653,255	consists of share capital	raised at	5 per cent.
1,199,178	„ „	„	4¾ „
500,000	„ „	„	4½ „
540,000	„ „	„	4 „
1,726,500†	„ „	„	3½ „
4,051,450	„ debentures	„	4 „
1,497,800	„ „	„	3½ „
425,000	„ debenture stock	„	4½ „
3,497,458	„ „	„	4 „
a 139,394	Capital not bearing interest.		

a Made up thus—

	£	£
Premium on share capital and debentures, &c.		441,851
Discount on debenture stock—		
Stock represented as shown above	3,922,458	
Cash received	3,629,580	
	292,580	
Discount on debentures—		
Amount as shown above	5,549,250	
Cash received	5,539,373	
	9,877	
	302,457	
	139,394	

105. In his last report on Indian Railways, Mr. Juland Danvers alludes to the mall amount of railway capital held by Native investors, and he notices, as an nstance of the indifference of the Indian community in regard to railway investments, that, although 500,000*l.*, out of the Southern Mahratta Railway capital of 3,000,000*l.*, were reserved for distribution in India, only 395 shares, representing 7,900*l.*, were applied for.

It is to be regretted that so little Indian capital is invested in railways, but it should be mentioned that in this particular instance complaints have been made that reasonable opportunity was not given to the public in India to subscribe, inasmuch as the time allowed was too short, and the prospectus was not made sufficiently public, by advertisement or otherwise. Several short branch lines have been promoted and put in hand by purely local enterprise during the past year, and it is hoped that the remunerative nature of railway enterprise in this country is now becoming more generally known, and that the amount of Indian capital invested in such undertakings will soon show a marked increase.

106. The following tables contain the information, regarding the Capital transactions of State and Guaranteed Railways, which has usually been given in Mr. Juland Danvers' annual reports.

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* Not including Darjeeling-Himalayan and Assam Railways, for which the above information is not available.

† Southern Mahratta Railway. Further interest at the rate of ½ per cent. per annum is payable up to and inclusive of the 1st June 1887.

Statement of Expenditure in England and in India on Indian State Railways appropriated to the various Undertakings to the 31st December 1882.

STATEMENT of EXPENDITURE in England and in India on Indian STATE

State Railways.	Expenditure appropriated.			Classification of Expenditure.				
	England.	India.	Total.	Preliminary Expenses.	Land.	Construction of Line.	Ballast and Permanent Way.	Stations and Buildings.
RAILWAYS CONSTRUCTED AND UNDER CONSTRUCTION.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Kaunia and Dhurla	—	8,43,753	8,43,753	910	14,431	85,428	4,73,855	16,528
Calcutta and South-Eastern	45,15,170	22,91,442	68,06,612	67,688	9,31,538	10,75,291	15,34,906	7,89,546
Nalhati	—51,021	3,78,634	3,27,613	—	—	21,690	1,90,420	25,600
Rajputana-Malwa	2,08,83,113	5,85,39,718	7,94,22,831	18,80,568	6,73,717	2,03,37,651	2,35,66,815	91,59,339
Rewari-Ferozepore	—	24,46,380	24,46,380	81,320	6,193	1,51,743	15,52,663	1,26,405
Holkar	34,14,678	92,80,097	1,26,94,775	2,16,987	59,620	58,98,013	23,67,525	13,61,297
Wardha Coal	8,18,079	51,96,107	60,14,186	91,642	4,726	15,73,996	29,49,835	3,55,948
Punjab Northern, Lahore to Rawalpindi	71,92,575	3,80,13,839	4,52,06,414	8,74,642	5,07,847	1,95,70,958	97,40,507	25,72,092
Indus Valley	1,57,77,035	5,23,85,633	6,81,62,668	11,26,612	3,26,535	2,22,70,559	1,85,49,491	52,18,722
Northern Bengal	53,73,313	1,55,53,093	2,09,26,406	1,26,480	8,33,256	58,13,023	55,08,373	25,17,745
Parbatipur-Dinagepore Extension	—	4,17,310	4,17,310	7,426	64,110	2,51,059	57,275	10,885
Calcutta and South-Eastern Extension	—	17,93,490	17,93,490	19,396	74,524	2,21,569	6,87,701	1,68,276
Rangoon and Irrawaddy Valley	26,09,170	1,07,00,665	1,33,09,835	56,589	1,96,121	30,82,944	42,84,838	18,66,848
Sindhia	14,62,381	73,01,333	87,63,714	2,64,859	20,527	49,94,578	21,74,901	6,35,699
Tirhoot	19,73,700	41,35,890	61,09,590	11,644	1,92,878	10,26,022	24,29,500	8,94,007
„ Extension	7,86,472	38,96,813	46,83,285	36,869	1,30,984	7,43,121	17,15,865	1,56,577
Nagpur and Chhatisgarh	18,46,899	72,17,489	90,64,388	2,15,982	38,206	32,49,636	25,19,923	9,75,202
Dhond and Manmad	42,11,221	57,14,195	99,25,416	1,28,698	39,133	30,36,893	50,26,826	7,31,572
Patna and Gya	8,59,348	31,14,025	39,73,373	6,909	1,30,783	6,92,712	20,40,384	3,99,383
Cawnpore and Furuckhabad	7,90,316	24,18,396	32,08,712	29,904	62,233	4,44,684	14,16,338	3,27,738
Ghazipur and Dildarnagar	—	7,22,994	7,22,994	2,218	8,636	96,029	3,50,553	1,01,338
Muttra and Achnera	9,958	6,18,093	6,28,051	1,643	12,341	94,912	3,81,894	77,960
Muttra and Hathras	1,974	10,82,184	10,84,158	926	16,086	35,455	5,31,388	1,27,310
Cawnpur Furuckabad Extension	—	78,100	78,100	40,326	2,301	9,201	206	—
Bareilly-Pilibhit	—	74,707	74,707	55,021	5,900	2,669	856	1,667
Muttra-Jumna Bridge	—	1,15,407	1,15,407	—	—	21,381	3,514	2,996
Patna-Baraitch*	—	2,80,253	2,80,253	1,47,870	4,249	76,910	—	17,348
Frontier Railways. Punjab Northern (Northern Section).	63,17,248	2,09,90,188	2,73,07,436	2,15,237	2,59,824	99,13,837	72,84,245	28,78,156
Frontier Railways. Kandahar	13,31,246	1,18,81,810	1,32,13,056	1,94,877	23,260	18,02,481	76,08,905	8,91,217
Rangoon and Sittang Valley	14,40,384	30,89,002	45,29,386	2,30,796	38,339	12,05,431	13,48,259	3,37,579
Southern Mahratta*	—	56,98,445	56,98,445	1,76,049	3,452	15,21,869	17,56,779	2,17,186
Amritsar-Pathankote	—	11,04,904	11,04,904	42,396	1,67,811	2,16,891	6,17,221	26,777
Dacca and Mymensing	—	1,70,704	1,70,704	1,37,348	7,903	—	—	8
Total	8,15,63,259	27,75,45,093	35,91,08,352	64,89,827	48,57,064	10,95,38,636	10,77,71,788	3,29,88,946
SURVEYS AND RAILWAYS IN ABEYANCE.								
Sindia Extension—Gwalior-Jhansi Section.	—	22,330	22,330	22,330	—	—	—	—
Bhopal Railway Extension	—	17,921	17,921	17,973	—	—	—	—
Railway Surveys in Bengal	—	3,29,950	3,29,950	2,99,861	14,103	—	—	—
Umballa-Kalka	—	42,017	42,017	42,046	—	—	—	—
Rawalpindi Railway Survey	—	24,104	24,104	24,003	—	—	—	—
Railway Surveys in North-Western Provinces and Oudh.	—	54,273	54,273	51,224	—	—	—	—
Railway Surveys in Bombay, including W. Deccan.	—	1,38,621	1,38,621	1,34,683	—	—	—	—
Railway Surveys in Central Provinces	—	62,832	62,832	62,849	—	—	—	—
„ „ in Madras	—	32,576	32,576	28,245	—	—	—	—
Total	—	7,24,624	7,24,624	6,83,214	14,103	—	—	—
Grand total	8,15,63,259	27,82,69,717	35,98,32,976	71,73,041	48,71,167	10,95,38,636	10,77,71,788	3,29,88,946
NATIVE STATES.								
Nizam's	—	1,22,27,794	1,22,27,794	1,45,445	—	40,67,531	47,73,847	12,97,108
Khamgaon	—	4,91,164	4,91,164	369	1,116	1,10,457	2,78,600	46,380
Amraoti	—	4,44,651	4,44,651	11,799	2,450	95,282	2,41,243	43,298
Bangalore Tumkur	—	1,35,788	2,35,788	25,532	—	97,094	3,544	1,233
Bangalore-Mysore Broad gauge	—	62,863	62,863	328	10,258	40,407	7,344	—
Bangalore-Mysore Metre gauge	—	44,59,270	44,59,270	93,939	60,185	9,91,360	15,14,298	3,75,060
Bhavnagar-Gondal	—	86,75,711	86,75,711	51,337	—	29,93,835	27,65,063	5,59,168
Bhopal†	—	34,60,091	34,60,091	7,826	19,12,026	3,57,341	90,407	6,790
Total	—	2,99,57,332	2,99,57,332	3,36,575	19,86,035	87,53,307	96,74,036	23,29,037

* Expenditure by Imperial Government to be refunded by the Company.
† A section of this line is being constructed from State Funds.

Railways appropriated to the various Undertakings to 31st December 1882.

Classification of Expenditure.							State Railways.
Steam Ferries.	Collieries.	Plant.	Rolling Stock.	Establishment.	Suspense Account.	Receipts on Capital Account deducted.	
							RAILWAYS CONSTRUCTED AND UNDER CONSTRUCTION.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1,21,235	—	6,668	1,13,794	8,291	2,583	—	Kaunia and Dhurla.
—	—	77,883	11,79,298	10,64,485	85,977	—	Calcutta and South-Eastern.
—	—	7,500	36,000	30,000	19,833	3,430	Nalhati.
—	—	15,38,965	1,23,20,223	54,49,074	45,54,857	57,978	Rajputana-Malwa.
—	—	39,310	—	1,32,244	3,57,431	929	Rewari-Ferozepore.
—	—	3,37,131	11,47,145	13,48,007	—	40,950	Holkar.
—	3,40,031	3,93,249	4,58,136	6,08,688	1,46,807	8,872	Wardha Coal.
—	—	17,48,553	44,17,074	48,24,154	10,67,323	1,16,736	Punjab Northern, Lahore to Rawalpindi.
4,23,723	—	19,95,955	91,42,232	68,92,178	23,14,837	98,176	Indus Valley.
4,10,395	—	8,02,619	22,92,641	22,56,492	4,09,227	43,845	Northern Bengal.
—	—	—3,889	—	22,432	8,166	154	Parbatipur-Dinagepore Extension.
—	—	15,624	32,899	58,215	5,17,866	2,580	Calcutta and South-Eastern Extension.
—	—	4,10,054	17,25,027	10,66,584	6,27,070	6,240	Rangoon and Irrawaddy Valley.
—	—	25,145	57,402	5,88,352	27,823	25,572	Sindhia.
2,44,357	—	2,27,655	5,85,346	5,92,665	—90,932	3,552	Tirhoot.
93,367	—	24,040	1,53,484	1,78,469	14,51,672	1,163	,, Extension.
—	—	2,80,447	8,10,607	7,10,836	2,69,214	5,665	Nagpur and Chhattisgarh.
—	—	1,87,768	17,297	7,72,801	147	15,719	Dhond and Manmad.
—	—	53,034	2,34,777	2,41,131	1,75,631	1,371	Patna and Gya.
713	—	49,030	5,98,151	2,01,222	78,987	288	Cawnpore and Faruckhabad.
—	—	7,102	—	58,353	98,890	117	Ghazipur and Dildarnagar.
—	—	6,133	—	51,584	1,617	33	Muttra and Achnera.
—	—	7,685	2,55,440	73,430	36,647	209	Muttra and Hathras.
—	—	1,047	13,856	9,044	2,162	43	Cawnpur-Faruckabad Extension.
—	—	1,918	—	5,998	678	—	Bareilly-Pilibhit.
—	—	11,079	—	9,359	67,086	8	Muttra-Jumna Bridge.
—	—	9,738	—	16,597	7,704	163	Patna-Baraitch.
—	—	13,07,009	35,30,482	10,38,486	8,89,046	8,886	Punjab Northern (Northern Section). } Frontier Railways
—	—	2,18,709	15,43,119	3,27,759	6,04,773	2,044	Kandahar. } Frontier Railways
—	—	1,72,373	3,330	3,32,008	8,62,322	1,051	Rangoon and Sittang Valley.
—	—	2,53,598	1,74,224	3,88,626	12,07,001	339	Southern Mahratta.*
—	—	3,870	—	29,969	206	237	Amritsar-Pathankote.
—	—	3,122	—	17,695	4,920	287	Dacca and Mymensing.
12,93,790	3,40,031	1,02,20,124	4,08,41,984	2,94,05,228	1,58,07,571	4,46,637	Total.
							SURVEYS AND RAILWAYS IN ABEYANCE.
—	—	—	—	—	—	—	Sindia Extension—Gwalior-Jhansi Section.
—	—	—	—	—	—	52	Bhopal Railway Extension.
—	—	1,359	—	11	14,616	—	Railway Surveys in Bengal.
—	—	—	—	—	—	29	Umballa-Kalka.
—	—	—	—	—	101	—	Rawalpindi Railway Survey.
—	—	—	—	—	3,053	4	Railway Surveys in North-Western Provinces and Oudh.
—	—	—	—	—	3,947	9	Railway Surveys in Bombay, including W. Deccan.
—	—	—	—	—	—	17	Railway Surveys in Central Provinces.
—	—	—	—	—	4,331	—	,, ,, in Madras.
—	—	1,359	—	11	26,048	111	Total.
12,93,790	3,40,031	1,02,21,483	4,08,41,984	2,94,05,239	1,58,33,619	4,46,748	Grand Total.
							NATIVE STATES.
—	—	2,90,246	6,91,291	10,93,800	41,314	82,788	Nizam's.
—	—	3,503	11,669	30,720	8,594	244	Khamgaon.
—	—	3,015	8,642	28,609	10,313	—	Amraoti.
—	—	163	—	7,849	538	165	Bangalore-Tumkur.
—	—	500	—	4,026	—	—	Broad-gauge. } Bangalore-Mysore.
—	—	73,211	2,49,566	3,61,423	7,48,754	8,526	Metre ,, } Bangalore-Mysore.
—	—	3,62,015	11,46,634	4,89,905	3,15,382	7,628	Bhavnagar-Gondal.
—	—	—	—	1,93,718	8,94,510	2,527	Bhopal.
—	—	6,42,653	21,07,802	22,10,050	20,19,405	1,01,878	Total.

A. J. FILGATE, Lieut.-Col., R.E.,
Accountant General.

Guaranteed and Assisted Railways.

Statement showing the Amount of Capital authorized to be raised for each Undertaking as now sanctioned, the Amount raised, and the Amount withdrawn, to 31st December 1882.

Railway.	Amount authorized to be raised on 31st December 1882.					Amount raised in England to 31st December 1882.						Amount raised in India.		Total Amount raised to 31st December 1882.	Total Amount withdrawn to 31st December 1882.
	Share Capital.	Debentures.	Debenture Stock.	Capital not bearing Interest.	Total.	Share Capital.	Debentures.		Debenture Stock.		Capital not bearing Interest.	Share Capital.	Capital not bearing Interest.		
							Amount of Debentures.	Cash received.	Stock represented.	Cash received.					
Guaranteed.	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Bombay, Baroda and Central India	7,550,300	575,000	—	35,449	8,160,749	7,528,628	*475,000*	471,250	—	—	35,449	21,672	—	8,056,999	8,029,000
Eastern Bengal	2,255,520	612,350	411,308	2,288	3,281,466	2,238,996	*612,350*	612,350	*411,308*	374,730	2,288	16,486	—	3,244,850	3,252,914
Great Indian Peninsula	20,000,000	928,800	3,065,300	303,789	24,297,889	19,503,103	*928,800*	927,673	*2,701,450*	2,475,559	228,860	496,897	74,929	23,707,021	23,612,463
Madras	10,267,850	400,000	—	10,548	10,678,398	10,260,001	*297,800*	297,800	—	—	10,548	—	—	10,568,349	10,447,214
Oudh and Rohilkhand	4,000,000	2,615,300	384,700	19,619	7,019,619	3,575,581	*2,615,300*	2,615,300	*384,700*	354,589	19,619	424,419	—	6,989,508	6,527,984
Sind, Punjab and Delhi	11,418,900	—	—	4,363	11,423,263	10,988,984	—	—	—	—	4,336	86,306	27	11,079,653	10,995,453
South Indian	3,211,360	620,000	425,000	65,795	4,322,155	3,210,139	*620,000*	615,000	*425,000*	425,000	65,740	1,221	55	4,317,155	4,347,889
Total	58,703,930	5,751,450	4,286,308	441,851	69,183,539	57,305,432	*5,549,250*	5,539,373	*3,922,458*	3,629,878	366,840	1,047,001	75,011	67,963,535	67,212,917
Assisted.															
Bengal Central	1,000,000	—	—	—	1,000,000	500,000	—	—	—	—	—	—	—	500,000	401,635
Rohilkhand-Kumaon	200,000	—	—	—	200,000	40,000	—	—	—	—	—	—	—	40,000	19,000
Southern Mahratta	3,000,000	—	—	—	3,000,000	1,724,525	—	—	—	—	—	1,975	—	1,726,500	*105,054
Total £	4,200,000	—	—	—	4,200,000	2,264,525	—	—	—	—	—	1,975	—	2,266,500	525,689
Grand Total £	62,903,930	5,751,450	4,286,308	441,851	73,383,539	59,569,957	*5,549,250*	5,539,373	*3,922,458*	3,629,878	366,840	1,048,976	75,011	70,230,035	67,738,606

* Exclusive of the outlay incurred by Government prior to the formation of the Company.

Guaranteed and Assisted Railways.

Statement showing the Amount received from and withdrawn by each Company during the Year ended 31st December 1882.

Railway.	Sums standing to the Credit of the Companies on the 31st December 1881.	Sums advanced to the Companies on the 31st December 1881.	Amount received: In England, between 1st January and 31st December 1882.				Amount received: In India, between 1st January and 31st December 1882.		Amount withdrawn: In England.		Amount withdrawn: In India.	Total received during the Year ended 31st December 1882.	Total withdrawn during the Year ended 31st December 1882.
			Share Capital.	Debentures.	Debenture Stock.	Capital not bearing Interest.	Share Capital.	Capital not bearing Interest.	On account of Stores, Establishment Charges, &c.	For Discharge of Debentures.	Amount.		
Guaranteed.	£	£	£	£	£	£	£	£	£	£	£	£	£
Bombay, Baroda, and Central India	14,438	—	—	100,000	—	62	—	—	201,894	—	*115,394**	100,062	86,500
Eastern Bengal	—	12,867	—	—	—	—	—	—	37,098	—	*41,901**	—	*4,803*
Great Indian Peninsula	94,962	—	—	—	—	—	—	—	350,749	—	*350,345**	—	404
Madras	219,832	—	—	41,400	—	—	—	—	80,255	143,600	*83,757†*	41,400	140,098
Oudh and Rohilkhand	236,350	—	—	500,000	—	64	—	—	158,200	—	116,690	500,064	274,890
Sind, Punjab and Delhi	47,646	—	—	—	—	—	—	—	89,762	—	*126,315**	—	*36,553*
South Indian	—	16,689	—	—	—	—	—	—	58,111	—	*44,067**	—	14,044
Total Guaranteed	613,228	29,556	—	641,400	—	126	—	—	976,069	143,600	*645,089*	641,526	474,580
Assisted.													
Bengal Central	170,000	—	330,000	—	—	—	—	—	321,635	—	—	330,000	321,635
Rohilkhand-Kumaon	—	—	40,000	—	—	—	—	—	19,000	—	—	40,000	19,000
Southern Mahratta	—	—	1,724,525	—	—	—	1,975	—	13,980	—	91,074	1,726,500	†105,074
Total £	170,000	—	2,094,525	—	—	—	1,975	—	354,615	—	91,074	2,096,500	445,689
Grand Total £	783,228	29,556	2,094,525	641,400	—	126	1,975	—	1,330,684	143,600	*554,015*	2,738,026	920,269

* Transfers of Expenditure to Revenue Account, Sale proceeds of Stores, Refunds, &c., exceed by these sums the amounts withdrawn in India on Capital Account during the year.
† Exclusive of the outlay incurred by Government prior to the formation of the Company.

STATEMENT of WITHDRAWALS out of CAPITAL for EXPENDITURE; showing the Amount withdrawn in England and in India by all the Guaranteed and Assisted Indian Railway Companies during each Financial Year from the commencement to 31st March 1883.

Year.	England.	India.	Total.
	£	£	£
1849–50	69,211	6,682	75,893
1850–51	61,164	38,099	99,263
1851–52	154,212	197,111	351,323
1852–53	174,920	252,640	427,560
1853–54	252,484	418,165	670,649
1854–55	960,878	769,278	1,730,156
1855–56	1,935,074	1,431,337	3,366,411
1856–57	1,752,813	1,762,287	3,515,100
1857–58	1,328,243	2,094,825	3,423,068
1858–59	1,941,033	3,551,075	5,492,108
1859–60	2,508,668	4,662,796	7,171,464
1860–61	2,388,315	5,190,400	7,578,715
1861–62	1,597,430	5,004,782	6,602,212
1862–63	1,852,393	4,010,951	5,863,344
1863–64	1,415,146	3,340,507	4,755,653
1864–65	1,396,821	2,725,419	4,122,240
1865–66	2,222,679	3,414,187	5,636,866
1866–67	3,958,357	3,339,346	7,297,703
1867–68	3,924,490	3,195,591	7,120,081
1868–69	1,702,452	2,165,475	3,867,927
1869–70	2,298,680	2,444,171	4,742,851
1870–71	1,899,054	1,877,216	3,776,270
1871–72	886,996	1,609,732	2,496,728
1872–73	822,995	*345,750**	477,245
1873–74	1,028,032	*334,979**	693,053
1874–75	1,174,893	*86,982**	1,087,911
1875–76	1,151,585	*200,779**	950,806
1876–77	1,222,846	*507,387**	715,459
1877–78	1,793,662	*469,678**	1,323,984
1878–79	1,786,234	*773,611**	1,012,623
1879–80	1,256,417	*906,857**	349,560
1880–81	941,782	*506,992**	434,790
1881–82	1,211,022	*351,482**	859,540
Total expenditure to end of 1881–82	49,070,981	49,017,575	98,088,556
Deduct withdrawals by East Indian Railway Company	12,276,504	18,620,297	30,896,801
Total expenditure to end of 1881–82	36,794,477	30,397,278	67,191,755
1882–83 (partly estimated)	1,498,260	93,467	1,591,727
Total £	38,292,737	30,490,745	68,783,482

* Transfers of expenditure to Revenue Account, Sale proceeds of Stores, Refunds, &c., exceed by these sums the amount withdrawn in India on Capital Account.

STATE of DEBENTURE LOANS on the 31st March 1883.

Railway.	Amount.		Rate of Interest.	Date at which Loan expires.
	£	£		
Bombay, Baroda and Central India	375,000		4	1st August 1884.
" " "	100,000		3½	*
		475,000		
Eastern Bengal	150,000		4	19th May 1884.
"	52,650		4	1st November 1884.
"	409,700		4	12th July 1886.
		612,350		
Great Indian Peninsula	320,500		4	1st January 1884.
" " "	568,800		4	1st July 1885.
" " "	39,500		4	1st January 1886.
		928,800		
Madras	56,400		4	*
"	200,000		4	31st December 1883.
"	143,600		3½	*
		400,000		
Oudh and Rohilkhand	60,000		3½	1st August 1884.
" "	200,000		4	16th August 1884.
" "	300,000		4	1st May 1885.
" "	615,000		4	4th June 1887.
" "	200,000		4	1st October 1887.
" "	740,000		3½	1st August 1888.
" "	500,000		3½	*
		2,615,300		
South Indian	620,000		4	1st July 1884.
		620,000		
		£5,651,450		

* Not known.

REVENUE.

107. The net revenue derived from Railways during the year 1882 amounted to Rs. 7,68,42,201 as compared with Rs. 7,26,39,879 in 1881.

108. The total Capital cost, of lines open to traffic, on the 31st December 1882 was Rs. 1,43,17,18,565* and the percentage of the net earnings on this outlay amounted to 5·37, as compared with a similar percentage of 5·16 in 1881 on a Capital outlay of Rs. 1,40,80,79,740.

109. If the steamboat service and capital expenditure on suspense account are excluded, the general results of railway working compare as follows for the last three years:—

	1880.	1881.	1882.
Miles open at end of year	8,996·38	9,858·25	*10,069
Capital outlay at end of year Rs.	1,28,56,91,292	1,34,73,90,895	*1,37,84,16,644
Cost per mile open „	1,42,912	1,36,827	*1,36,896
Gross earnings during the year „	12,86,55,103	14,32,30,801	†15,23,12,619
Working expenses during the year „	6,48,00,345	7,07,12,465	†7,58,05,494
Net profits of year „	6,38,54,758	7,25,18,336	†7,65,07,125
Per-centage of net profits on capital cost „	4·97	5·38	†5·55
Gross earnings per mile per week (calculated on mean mileage worked) Rs.	282	285	294

110. On the next page will be found a statement comparing the net earnings, and their percentages on Capital expenditure, for the principal Railways during the last five years.

111. The net revenue earned by all State lines during the past year amounted to Rs. 1,08,16,057, being a return of 3·03 per cent. on a total capital expenditure of Rs. 35,65,20,663.† Excluding the Punjab Northern, Indus Valley and Kandahar Frontier Railways, the net earnings of the State lines were at the rate of 4·12 per cent. on the Capital expended.

112. The net revenue of the East Indian Railway amounted to Rs. 2,97,12,511, being at the rate of 8·56 per cent. on a total Capital expenditure of Rs. 34,72,06,225. The surplus profits on this line during the past year, after payment of annuity and interest charges, were Rs. 89,09,630, of which sum $\frac{4}{5}$ths, or Rs. 71,27,704, accrued to Government.

113. The following statements, relating to Guaranteed Railway transactions, are similar to those given in previous reports by Mr. Juland Danvers. Conversions from the Indian currency into sterling have been made at the contract rates of exchange.

114. It will be seen that the Guaranteed lines returned a net revenue of 3,319,439*l.*, being at the rate of 4·94 per cent. on a total Capital expenditure of 67,167,220*l.*
The guaranteed interest for the year amounted to 3,279,407*l.*
So that the net earnings exceeded the guaranteed interest by 40,032*l.*

115. From the commencement of operations up to the 31st December 1882, a gross sum of 57,774,406*l.* has been advanced as interest by the State to the Guaranteed

* See statement on page 36.

† Excluding Dildarnagar-Ghazipur and Jodhpur Railways.

Railway Companies, and up to the 30th June 1882 the total net earnings of these railways, exclusive of half of any surplus profits realised, amounted to 32,430,809*l.*, leaving a net amount of 25,343,597*l.*, which has been paid by the State.

116. The surplus profits realised on Guaranteed Railways during the year 1882 amounted to 917,312*l.*, as compared with 652,195*l.* in 1881, and 204,645*l.* in 1880.

117. On page 49 will be found a statement showing the direct annual loss or gain to the State from railway outlay during each financial year from 1858. The first year in which there was a gain was in 1877–78. The next two years show a loss, but the last four years exhibit a constant gain, and it may be confidently expected that this gain will steadily increase in future years.

But these figures only show the results obtained from a purely financial point of view. The enormous advantages indirectly conferred upon the country by the extension of the railway system in India cannot be gauged by such figures, and can best be appreciated by a consideration of the large increase in trading operations and in the general prosperity of the country which has everywhere attended the opening of new lines of railway.

STATEMENT showing the NET EARNINGS and their PERCENTAGE on the CAPITAL EXPENDITURE finally charged off (excluding Suspense Accounts) for the principal Railways during the last Five Years, 1878–1882.

Railway.	1882.		1881.		1880.		1879.		1878.	
	Net Earnings.	Percentage of Net Earnings per annum on Capital Expenditure.	Net Earnings.	Percentage of Net Earnings per annum on Capital Expenditure.	Net Earnings.	Percentage of Net Earnings per annum on Capital Expenditure.	Net Earnings.	Percentage of Net Earnings per annum on Capital Expenditure.	Net Earnings.	Percentage of Net Earnings per annum on Capital Expenditure.
BROAD GAUGE.	Rs.		Rs.		Rs.		Rs.		Rs.	
East Indian	2,97,12,511	8·80	3,09,48,310	9·30	2,87,54,418	8·70	2,90,80,929	8·83	2,55,31,189	7·86
Guaranteed: Madras	25,70,841	2·30 (a)	20,75,856	1·87	19,57,136	1·77	20,75,170	1·88	15,87,980	1·44
Great Indian Peninsula	1,83,89,856	7·29 (b)	1,62,19,488	6·46	1,11,05,551	4·44	1,01,90,601	4·10	1,44,91,248	5·88
Bombay, Baroda and Central India.	50,10,872	5·91	57,45,702	6·86	47,34,653	5·77	37,92,898	4·61	36,87,125	4·52
Eastern Bengal	36,38,438	10·52	33,69,281	9·72	27,24,310	7·88	24,33,530	7·10	26,15,072	7·73
Sind, Punjab, and Delhi	34,10,880	2·94	30,76,660	2·65	54,70,862	4·75	45,40,520	3·99	31,70,091	2·86
Oudh and Rohilkhand	18,01,371	3·07	19,75,698	3·28	19,04,410	3·28	18,19,936	3·24	21,15,469	3·83
Imperial State: Punjab Northern	5,09,018	0·83	3,59,598	0·58	5,64,171	1·40	3,78,889	1·54	5,810	0·03
Indus Valley and Kandahar	15,76,113	2·01	11,77,288	1·58	19,22,399	2·77	6,17,459	1·08	*—1,31,441*	*—0·26*
Provincial State: Patna-Gya	2,15,705	5·68	1,79,145	5·11	2,11,256	6·56	1,01,787	3·58	—	—
Native States: Nizam's	3,75,099	3·08	2,92,775	2·40	2,24,309	1·86	89,925	0·77	1,11,846	0·98
METRE GAUGE.										
Guaranteed: South Indian	14,02,329	3·26	12,37,726	2·89	9,30,018	2·23	10,63,252	2·60	10,78,107	2·74
Imperial State: Rajputana-Malwa — Rajputana	51,29,252	5·87	28,67,041	5·51	12,33,305	3·62	11,79,167	3·81	11,30,471	3·99
Rajputana-Malwa — Holkar and Scindia Neemuch.			6,02,299	1·90	3,53,991	1·40	2,91,828	1·46	3,01,917	1·54
Provincial State: Northern Bengal	10,93,553	5·33	8,99,316	4·41	6,43,509	3·20	1,25,120	0·63	2,41,806	2·43
Tirhoot	2,54,047	3·91	2,36,200	3·70	2,40,272	4·49	1,07,818	2·10	1,08,808	2·17
Cawnpore-Farukhabad	1,17,110	3·74	84,238	2·70	—	—	—	—	—	—
Nagpur and Chhattisgarh	1,89,171	2·15	66,056	0·95	21,271	0·70	—	—	—	—
Rangoon and Irrawaddy Valley	6,30,431	4·97	6,45,077	5·16	5,21,084	4·20	1,11,743	1·19	67,157	0·60
Native States: Bhavnagar-Gondal	3,54,647	3·99	2,05,254	3·05	—	—	—	—	—	—

(*a*) Includes Rs. 2,40,023 on account of rent of leased lines.

(*b*) 7·20 deducting amount paid to Government as above.

N.B.—For railways which work other branch lines, the figures shown under "Percentage of Net Earnings per annum on Capital Expenditure" are calculated on the capital outlay, exclusive of the outlay on the branch lines.

Guaranteed Interest.—Indian Railways.

Statement of the Total Amount of Interest advanced to each of the under-mentioned Railway Companies to 31st December 1882.

Railway Company.	Interest advanced to 31st December 1881.	Interest advanced during 1882.			Total.
		England.	India.	Total.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Bombay, Baroda, and Central India.	7,070,737 16 6	396,407 3 4	298 12 3	396,705 15 7	7,467,443 12 1
Eastern Bengal - - -	2,494,175 9 2	153,296 3 4	240 18 4	153,537 1 8	2,647,712 10 10
Great Indian Peninsula - -	20,394,372 1 2	1,141,638 5 0	3,571 15 0	1,145,210 0 0	21,539,582 1 2
Madras - - - -	9,983,089 3 8	524,000 2 6	—	524,000 2 6	10,507,089 6 2
Oudh and Rohilkhand - -	2,899,285 10 1	296,711 8 7	714 10 0	297,425 18 7	3,196,711 8 8
Sind, Punjab, and Delhi -	9,145,365 8 0	553,079 15 0	672 4 8	553,751 19 8	9,699,117 7 8
South Indian - - -	2,512,754 10 0	203,994 19 10	—	203,994 19 10	2,716,749 9 10
Total - - -	54,499,779 18 7	3,269,127 17 7	5,498 0 3	3,274,625 17 10	57,774,405 16 5

Statement showing approximately the Amounts advanced on account of Guaranteed Interest to the under-mentioned Railway Companies to 30th June 1882.

Railway Company.	Total Amount advanced to 31st December 1882.*	Aggregate of Net Revenue Balances for the several half years to 30th June 1882, inclusive.	Net Amount advanced.
	£	£	£
Bombay, Baroda, and Central India -	7,467,444	4,337,004	3,130,440
Eastern Bengal - - - -	2,647,713	2,396,116	251,597
Great Indian Peninsula - - -	21,539,582	15,222,360	6,317,222
Madras - - - - -	10,507,089	4,543,020	5,964,069
Oudh and Rohilkhand - - -	3,196,711	1,433,127	1,763,584
Sind, Punjab, and Delhi - - -	9,699,117	3,339,480	6,359,637
South Indian - - - - -	2,716,750	1,159,702	1,557,048
Total - - -	57,774,406	32,430,809	25,343,597

* The interest for the half year to 30th June 1882 not being paid until the succeeding half year.

Statement showing the Amount of Surplus Profits earned by Guaranteed Railways to 31st December 1882, inclusive.

Railway Company.	To end of 1877.	Half Year to 30th June 1878.	Half Year to 31st Dec. 1878.	Half Year to 30th June 1879.	Half Year to 31st Dec. 1879.	Half Year to 30th June 1880.	Half Year to 31st Dec. 1880.	Half Year to 30th June 1881.	Half Year to 31st Dec. 1881.	Half Year to 30th June 1882.	Half Year to 31st Dec. 1882.	Total.
	£	£	£	£	£	£	£	£	£	£	£	£
Bombay, Baroda, and Central India.	36,929	*	—	*	—	*	—	158,450	—	147,830	—	343,209
Eastern Bengal -	174,229	26,158	64,981	317	63,257	—	99,197	4,414	149,764	15,304	164,054	761,675
East Indian - -	3,861,756	539,047	305,834	679,823	468,967	†	†	†	†	†	†	5,855,427
Great Indian Peninsula.	775,785	364,944	—	112,569	—	101,576	—	338,519	1,248	500,124	—	2,284,565
Sind, Punjab, and Delhi.	—	—	—	—	—	3,872	—	—	—	—	—	3,872
Total - - -	4,848,699	930,149	370,815	792,709	532,224	105,448	99,197	501,183	151,012	753,258	164,054	9,248,748

* Surplus profits were earned by the Bombay, Baroda, and Central India Railway Company during these half years, but no division took place owing to the special agreement that all surplus profits should be applied to the construction of the Nerbudda Bridge.
† Surplus profits of the East Indian Railway after it had been acquired by the State are omitted in this statement.

GUARANTEED RAILWAYS.

Year.	Capital expended to 31st March.	Net Revenue for Year to 31st December.	Guaranteed Interest for Year to 31st December.	Interest in excess of Revenue.	Revenue in excess of Interest.
	£	£	£	£	£
1870 - -	83,910,587	2,846,600	4,344,113	1,497,513	—
1871 - -	87,686,857	2,686,260	4,544,764	1,858,504	—
1872 - -	90,183,585	2,869,223	4,603,853	1,734,630	53
1873 - -	90,660,830	3,185,069	4,613,573	1,428,504	—
1874 - -	91,353,883	3,956,071	4,651,088	695,017	—
1875 - -	92,441,794	3,576,514	4,641,979	1,065,465	—
1876 - -	93,392,600	4,442,430	4,658,947	216,517	—
1877 - -	94,108,059	6,117,226	4,662,635	—	1,454,591
1878 - -	95,430,863	5,002,028	4,708,134	—	293,894
1879 - -	96,444,666	5,062,188	4,748,233	—	313,955
1880* - -	65,907,288	2,662,213	3,263,179	600,966	—
1881* - -	66,349,320	3,110,824	3,272,651	161,827	—
1882* - -	67,021,755	3,319,439	3,279,407	—	40,032

* East Indian Railway excluded.

RESULTS of WORKING the GUARANTEED RAILWAYS for the YEAR ended 31st December 1882.

Railway Company.	Net Revenue.	Guaranteed Interest.	Revenue in excess of Interest.	Interest in excess of Revenue.	Extra Dividend in excess of Guaranteed Interest received by the Companies as Surplus Profits.	
					Rate per Cent. for Half Year to 30th June 1882.	Rate per Cent. for Half Year to 31st Dec. 1882.
GUARANTEED.	£	£	£	£	£ s. d.	£ s. d.
Bombay, Baroda, and Central India	459,330	394,457	64,873	—	0 17 6	—
Eastern Bengal - - -	333,523	153,720	179,803	—	0 2 0	3 2 9
Great Indian Peninsula - -	1,663,735	1,145,210	518,525	—	1 6 6	—
Madras - - - -	235,660	521,493	—	285,833	—	—
Oudh and Rohilkhand { Main Line -	180,137	296,005	—	115,868	—	—
Oudh and Rohilkhand { Northern Extension	—	10,762	—	10,762	—	—
Sind, Punjab, and Delhi - -	312,664	553,765	—	241,101	—	—
South Indian - - - -	134,390	203,995	—	69,605	—	—
Total - - - - £	3,319,439	3,279,407	763,201	723,169	0 0 0	0 0 0

STATEMENT showing the direct ANNUAL GAIN or LOSS to the STATE from RAILWAY OUTLAY since 1858.

Year.	GUARANTEED RAILWAYS					STATE RAILWAYS.				EAST INDIAN RAILWAY.				Total Loss or Gain to State.
	Capital raised to end of each Year.	Capital withdrawn for Expenditure to end of each Year.	Net Traffic Receipts, less Moieties of Surplus Profits paid to Companies.	Guaranteed Interest.	Loss or Gain to State.	Capital expended.	Net Traffic Receipts.	Interest at 4½ per Cent. up to end of 1880–81, afterwards† at 4 per Cent.	Loss or Gain to State.	Capital expended.	Net Traffic Receipts, less Surplus paid to Share-holders.	Interest and Annuity.	Loss or Gain to State.	
	£	£	£	£	£	£	£	£	£	£	£	£	£	£
1858–59	22,998,405	19,151,531	232,365	838,411	606,046	—	—	—	—	—	—	—	—	606,046
1859–60	28,573,287	26,322,995	403,057	1,199,929	796,872	—	—	—	—	—	—	—	—	796,872
1860–61	34,397,817	33,901,710	389,413	1,485,745	1,096,332	—	—	—	—	—	—	—	—	1,096,332
1861–62	42,979,539	40,503,922	391,162	1,788,153	1,396,991	—	—	—	—	—	—	—	—	1,396,991
1862–63	48,218,541	46,367,266	625,615	2,166,755	1,541,140	—	—	—	—	—	—	—	—	1,541,140
1863–64	54,332,994	51,122,919	821,548	2,456,182	1,634,634	—	—	—	—	—	—	—	—	1,634,634
1864–65	57,541,917	55,245,159	1,189,851	2,683,787	1,553,936	—	—	—	—	—	—	—	—	1,553,936
1865–66	60,860,247	60,882,025	2,865,574	2,889,241	23,667	—	—	—	—	—	—	—	—	23,667
1866–67	67,258,917	68,179,728	2,347,085	3,031,087	684,002	—	—	—	—	—	—	—	—	684,002
1867–68	76,571,751	75,299,809	1,989,112	3,480,677	1,491,565	594	—	14	14	—	—	—	—	1,491,579
1868–69	82,417,905	79,167,736	2,229,509	3,881,013	1,651,504	552,992	−1,379	12,445	13,834	—	—	—	—	1,665,338
1869–70	86,773,325	83,910,587	2,627,941	4,126,025	1,498,084	734,862	−790	29,180	29,970	—	—	—	—	1,528,054
1870–71	91,426,816	87,686,857	2,556,707	4,341,609	1,784,902	1,193,234	68	43,585	43,517	—	—	—	—	1,828,419
1871–72	93,550,303	90,183,585	2,877,153	4,542,183	1,665,030	1,837,854	−4,063	68,199	72,262	—	—	—	—	1,737,292
1872–73	93,736,915	90,660,830	2,554,485	4,608,418	2,053,933	3,251,503	5,362	114,510	109,148	—	—	—	—	2,163,081
1873–74	94,725,814	91,353,883	3,241,189	4,617,923	1,376,734	5,606,128	−6,474	199,297	205,771	—	—	—	—	1,582,505
1874–75	95,119,118	92,441,794	3,454,848	4,643,961	1,189,053	8,620,308	44,982	320,095	275,113	—	—	—	—	1,464,166
1875–76	95,072,441	93,392,600	3,729,034	4,637,891	908,857	11,785,492	96,027	459,131	363,104	—	—	—	—	1,271,961
1876–77	94,833,129	94,188,059	4,433,151	4,658,681	225,530	14,651,353	88,621	587,525	498,904	—	—	—	—	724,434
1877–78	96,316,173	95,420,309	5,896,790	4,655,285	+741,505	18,636,321	127,774	787,479	659,705	—	—	—	—	+131,800
1878–79	97,174,046	96,444,666	4,023,589	4,705,191	681,602	21,964,209	231,629	899,874	668,245	—	—	—	—	1,349,847
1879–80	97,959,284	96,829,969	3,974,645	4,716,340	741,695	24,644,702	333,497	1,058,160	724,663	*37,354,248	949,154	34,397	+914,757	551,601
1880–81	67,282,930	66,348,478	2,555,069	3,261,951	706,882	28,047,033	661,606	1,204,660	543,054	418,435	2,647,479	1,390,542	+1,256,937	+7,001
1881–82	67,465,609	67,021,531	3,282,294	3,271,771	+10,523	29,703,708	870,149	1,160,445	290,296	455,262	3,063,547	1,673,688	+1,389,859	+1,110,086
1882–83 Budget	68,291,923	67,995,251	3,023,000	3,283,760	260,760	31,851,633	1,035,500	1,241,711	206,211	485,000	2,445,000	1,716,727	+728,273	+261,302
1882–83 Revised	69,135,650	68,848,978	3,043,900	3,275,280	231,380	31,378,108	1,050,450	1,226,636	176,186	263,200	2,598,050	1,706,900	+891,150	+483,584
1883–84 Budget	69,735,650	70,076,878	3,054,500	3,301,180	246,680	33,773,108	1,157,700	1,308,024	150,324	424,000	2,718,800	1,710,100	+1,008,700	+611,696
			64,229,586	89,264,609	25,035,023	—	4,655,159	9,429,269	4,774,110	38,915,145	11,977,030	6,515,627	+5,461,403	24,347,730

The decrease in the transactions of the Guaranteed Railways in 1880–81 compared with the year immediately preceding is due to the removal of the East Indian Railway from the category of Guaranteed Railways.

* This sum is thus arrived at:—

	£
(a) Capital of East Indian Railway at time of purchase	26,200,000
(a) 25 per cent. premium thereon	6,550,000
Debenture and Debenture Stock	4,450,000
Outlay subsequent to purchase	154,248
Total	37,354,248

(a) Of these amounts, 27,623,386*l.* will be redeemed by an annuity terminable in 1953, which annuity is entered in the column "Interest and Annuity."

† Except on 1,000,000*l.* lent by His Highness the Maharajah Holkar for the construction of the Holkar State Railway, on which 4½ per cent. is paid by the State.

The figures in this statement agree with the Finance and Revenue Accounts. The whole of the Indian Capital transactions of Guaranteed Railways down to the present time, and those of the Revenue and Interest transactions of the Guaranteed Railways down to the year 1878–79, the net traffic receipts of the Guaranteed Railways, and the portion of the guaranteed interest paid in India, have been converted into sterling at the contract rates of exchange. All other transactions are converted into sterling on the assumption that 1*l.* = Rs. 10.

TRAFFIC AND WORKING.

118. The tables at pages 62 to 73 of this report contain detailed information connected with the passenger and goods traffic on all open lines for the year 1882, and on pages 52 and 53 will be found a summary giving the general results of working the principal railways. The main results* are summarised below for all railways, and compared with the similar figures for 1881 and 1880 :—

——	1882.	1881.	1880.
Mean mileage open for traffic - -	9,985·30	9,637·60	8,760·41
Number of passengers carried - -	†58,875,918	54,763,683	49,155,280
Number of tons of goods moved - -	‡14,833,243	13,214,074	10,394,154
Number of tons of general merchandise -	‡9,275,065	8,503,861	7,798,779
Number of passenger miles - -	†2,898,239,587	2,620,363,895	2,388,221,774
Ton mileage of goods - - -	†2,465,049,623	2,309,177,012	1,812,228,689
Number of train miles - - -	§36,751,857	34,793,517	30,247,802
Gross receipts - - - - Rs.	‖15,23,12,619	14,32,30,801	12,86,55,103
Working expenses - - - „	‖7,58,05,494	7,07,12,465	6,48,00,345
Net receipts - - - - „	‖7,65,07,125	7,25,18,336	6,38,54,758

In round numbers, the average length open during the year 1882 was 9,985 miles, upon which the traffic work performed was equivalent to 2,898 millions of passengers and 2,465 millions of tons of goods, carried one mile.

Passenger traffic.

119. The total number of passengers carried shows an increase of 7·5 per cent. over the number carried in 1881. The passenger mileage has increased 10·6 per cent., and the receipts from passenger traffic 8·3 per cent. The number of passengers per open mile was 5,992 in 1882, as compared with 5,682 in 1881 and 5,611 in 1880. Of the total number carried in 1882, the lower class passengers constituted 97·41 per cent., the second class 2·11, and the first class passengers only 0·48 per cent.

120. The distances travelled by each class of passenger were, on an average, first class 91 miles, second class 80 miles, and lower classes 48 miles; and for these journeys the first class passenger paid Rs. 6-7-4, the second class passenger Rs. 2-2-3, and the third class passenger Rs. 0-10-1.

121. The average receipts per coaching train mile were Rs. 3·40, the highest being Rs. 5·99 on the Sindia line, and, among the principal railways, the lowest Rs. 2·29 on the Rajputana-Málwa Railway.

122. The largest average number of passengers carried in a passenger train was 300·17 on the Oudh and Rohilkhand Railway, the smallest 101 on the Wardha Coal line.

123. The lowest average cost of hauling one passenger unit one mile was 0·83 pie on the East Indian, on which line the average sum received for this work was 2·88 pies.

124. Details of the passenger traffic are given in the table at pages 62, 63, and 70.

Goods traffic.

125. The total tonnage of goods lifted during the year shows an increase of 12·25 as compared with that in 1881; but the total ton mileage shows an increase of only 6·75 per cent. over that of the previous year, while the receipts from goods traffic were larger in 1882 than in 1881 by 6·2 per cent. The number of tons of goods carried per mile open was 1,516 in 1882, as compared with 1,371 in 1881 and 1,186 in 1880.

126. The average receipts per goods train mile were Rs. 4·41, the highest being Rs. 8·31 on the Eastern Bengal Railway, and, among the principal railways, the lowest Rs. 1·82 on the South Indian line.

127. The lowest average cost of hauling one ton of goods one mile was 2·42 pies on the East Indian Railway, and the average sum received on that line for doing this work was 6·26 pies.

128. Details of the goods traffic are given in the table at pages 64, 65, and 71.

* Excluding Assam, Jodhpur, and Pondicherry Railways.
† Excluding Sindia, Dildarnagar-Ghazipur, Muttra-Achnera, and Darjeeling Railways.
‡ Excluding Sindia, Dildarnagar-Ghazipur, Muttra-Achnera, Kaunia-Dhurla, Bhopal, and Darjeeling Railways.
§ Excluding Muttra-Achnera and Darjeeling Railways.
‖ Excluding Dildarnagar-Ghazipur Railway, and steamboat service on all lines.

129. Including the steam boat service, the gross receipts during the year amounted to Rs. 15,35,23,201, of which Rs. 4,71,17,594 were obtained on the East Indian Railway, Rs. 7,76,37,568 on the Guaranteed lines, Rs. 2,62,18,523 on State Railways, Rs. 21,83,042 on lines in Native States, and Rs. 3,66,474 on the Darjeeling-Himalayan Railway. Gross receipts.

130. Of the total earnings, Rs. 4,64,40,855 were due to passengers, Rs. 10,15,96,738 to goods, and Rs. 51,19,134 to steam boat service and miscellaneous sources.

131. Compared with the previous year's returns, the traffic receipts (coaching and goods) show an increase of 6·88 per cent. The total receipts* per mile open were Rs. 15,275 in 1882, Rs. 14,862 in 1881, and Rs. 14,686 in 1880.

132. The receipts* per train mile in 1882 were Rs. 4·14, as compared with Rs. 4·12 in 1881, and Rs. 4·25 in 1880.

133. Excluding steamboat expenditure, the total working expenses during 1882 amounted to Rs. 7,58,05,494, the percentage on gross receipts being 49·77 as compared with a similar percentage of 49·37 in 1881, and of 50·37 in 1880. Working expenses.

134. The lowest percentages in 1882 were 36·94 on the East Indian Railway, 40·60 on the Eastern Bengal, 48·00 on the Great Indian Peninsula, 50·76 on the Bombay, Baroda, and Central India, 49·04 on the Northern Bengal State, and 53·07 on the Rajputana-Malwa State Railway.

135. The expenses per train mile for all lines average Rs. 2·08, and were lowest on the Rajputana-Malwa Railway Rs. 1·55, and on the Nizam's Railway Rs. 1·62. On the East Indian the expenses per train mile were Rs. 1·92, and the Guaranteed lines they varied from Rs. 1·65 on the South Indian to Rs. 3·13 on the Eastern Bengal Railway.

136. The details of expenditure on maintenance and working will be found in the tables at pages 68 and 69.

137. The aggregate traffic receipts and the receipts per mile open were considerably larger in 1882 than during the previous year. The most marked increases were on the Great Indian Peninsula, the Bhavnagar-Gondal, the Rajputana-Malwa, and the Bengal Provincial Railways. There has been a large increase of traffic on the Indus Valley Railway, and the earnings on the Madras lines are considerably larger than in the previous year. On the other hand, the net receipts on the Bombay, Baroda, and Central Indian Railway are less than in 1881. General.

138. The tables at pages 74 to 81 contain particulars of the tonnage and receipts of the principal commodities carried on the various railways, as compared with the similar figures for 1881. Except on the Punjab lines, the tonnage of food grains was considerably less in 1882 than in 1881; but there is a large increase under coal on the East Indian, and generally in the tonnage of cotton, metals, salt, seeds, and sugar, carried on the several lines.

139. The statement at pages 54 and 55 shows the system of working adopted on the different railways. System of working.

140. At the Conference of railway officers, representing the several Companies and State Railways at Simla in September 1882, a revised set of rules were framed for the interchange of rolling stock. Railway Conference of 1882.

These rules, which came into force on the 1st January 1883, are binding, on all broad gauge railways represented, for two years from September 1882, and, subsequently, one year's notice of withdrawal will be necessary.

141. Among other subjects dealt with at the Conference, it was decided that the simplification of railway goods tariffs was desirable, and it was suggested that the matter should be referred to a committee of traffic officers. The Government of India and the Home Boards of the several Railway Companies having concurred in the suggestion, arrangements are being made for the meeting of such a committee.

142. Reduced rates for the carriage and through booking of parcels were agreed to, and the arrangements already in force and those considered desirable for the comfort and convenience of lower class passengers were discussed at considerable length.

* Excluding steamboat service.

General Results of Working of the Principal Indian Railways

Progressive Number.	Headings.	Broad Gauge.									
		East Indian.	Madras.	Great Indian Peninsula (b).	Bombay, Baroda, and Central India (c).	Eastern Bengal (d).	Sind, Punjab, and Delhi.	Oudh and Rohilkund.	Punjab, Northern.	Indus Valley and Kandahar.	Wardha Coal (e).
1	Miles open on 31st December 1882. Miles	1,506·78	860·86	1,446·75	458·50	193·10	676·00	546·85	418·75	652·00	45·00
2	Total Capital Outlay Rs.	34,72,06,225	11,40,56,960	25,75,91,252	8,88,24,344	3,55,57,780	11,99,58,623	6,42,88,929	6,30,28,341	8,13,75,725	53,09,476
3	„ per mile „ open (a).	2,24,162	1,29,573	1,95,808	1,85,582	2,08,063	1,69,020	107,345	1,45,843	1,19,572	1,14,726
4	Coaching receipts - „	1,31,92,309	29,00,202	73,18,304	33,14,842	15,48,439	36,01,111	21,82,247	13,96,492	11,18,467	35,023
5	Goods receipts - - „	3,27,67,476	38,41,103	2,75,78,253	66,53,319	39,71,794	57,78,038	27,15,428	16,34,178	34,99,826	1,60,472
6	Gross earnings - „	4,71,17,595	69,18,571	3,53,63,201	1,01,76,189	61,25,724	1,00,32,324	52,62,844	31,30,512	51,12,560	2,51,923
7	Working expenses - „	1,74,05,084	43,47,730	1,69,73,345	51,65,317	24,87,286	66,21,444	34,61,473	26,21,494	35,36,447	1,93,480
8	Ditto per cent. of gross receipts.	36·94	62·84	48·00	50·76	40·60	66·00	65·77	83·74	69·17	76·80
9	Net earnings - - Rs.	2,97,12,511	25,70,841	1,83,89,856	50,10,872	36,38,438	34,10,880	18,01,371	5,09,018	15,76,113	58,443
10	Ditto per cent. on capital outlay.	8·56	2·25	7·29	5·69	10·23	2·84	2·80	0·81	1·94	1·10
11	Ditto ditto on paid up capital.	—	2·23	7·11	5·72	10·28	2·82	2·77	—	—	—
12	Passenger train miles No.	3,003,576	889,159	2,546,738	840,123	316,346	1,149,933	499,356	528,947	443,480	28,415
13	Goods train miles - „	6,047,787	1,074,121	5,563,481	918,190	477,950	1,535,000	879,839	468,296	1,465,393	49,272
14	Total train miles - „	9,051,363	1,963,280	8,110,219	1,758,313	794,266	2,685,023	1,379,195	997,243	1,908,873	77,687
15	Coaching receipts per passenger train mile. Rs.	4·39	3·26	2·87	3·95	4·89	3·13	4·37	2·64	2·52	1·23
16	Goods receipts per „ goods train mile.	5·42	3·58	4·95	7·25	8·31	3·76	3·68	3·48	2·39	3·26
17	Gross earnings per „ train mile.	5·20	3·52	4·36	5·79	7·71	3·74	3·82	3·14	2·68	3·24
18	Working expenses „ per train mile.	1·92	2·21	2·09	2·94	3·13	2·46	2·51	2·63	1·85	2·49
19	Net earnings per „ train mile.	3·28	1·31	2·27	2·85	4·58	1·27	1·31	0·51	0·83	0·75
20	Average number of passenger in a passenger train.	259·35	232·37	145·54	249·59	259·93	204·02	300·17	178·00	172·37	101·00
21	Average number of tons in a goods train.	165·91	77·28	97·96	147·48	132·72	90·61	106·45	60·74	83·47	90·30
	Average number of vehicles (excluding brake-vans)—										
22	In each passenger train	16·88	11·37	12·00	15·23	16·00	14·51	9·66	11·75	15·61	—
23	In each goods train -	29·35	20·39	24·00	35·65	29·15	24·13	25·13	18·58	22·15	4·53
24	In each mixed train — Passenger carriages.	13·28	5·65	10·00	9·44	10·92	11·18	21·44	11·83	7·90	16·62
	In each mixed train — Goods vehicles	9·61	16·34	7·00	15·60	11·08	10·74		5·17	11·89	14·09
25	Number of passengers carried one mile.	778,988,659	206,613,284	370,659,387	209,686,200	82,228,317	234,611,721	149,890,560	94,061,688	76,440,713	2,856,974
26	Number of tons of goods carried one mile.	1,003,429,077	83,010,177	545,028,710	135,414,841	63,433,011	139,099,917	93,657,947	28,446,042	122,319,809	4,449,307
	Average cost of hauling for one mile—										
27	One passenger unit. Pies	0·83	1·23	1·41	1·41	1·22	1·65	1·25	2·29	1·46	2·99
28	One ton of goods -	2·42	6·30	4·64	4·73	4·75	6·52	4·46	9·17	3·95	5·79
	Average sum received for carrying one mile—										
29	One passenger unit Pies	2·88	2·70	3·07	2·72	3·23	2·58	2·59	2·51	2·32	2·12
30	One ton of goods - „	6·26	8·86	9·70	9·43	11·98	7·95	5·55	10·71	5·47	6·92

(a) Excluding Steamer service and suspense accounts.
(b) Includes Dhond and Manmad and Berar State Railways except in Nos. 2, 3, 10, and 11.
(c) Includes the Patri branch, except in Nos. 10 and 11.

during the Year ending 31st December 1882.

			Narrow Gauge.										
Calcutta and South Eastern.	Patna-Gya.	Nizam's.	South Indian (h)	Rajputana-Malwa.	Northern Bengal.	Tirhoot.	Mutira-Hatiras.	Cawnpore-Farrukhabad.	Magpur and Chhattisgarh.	Rangoon and Irrawaddy Valley.	Bhavnagar-Gondal.	Mysore.	Progressive Number.
43·00	57·20	117·10	663·00	1,115·55	230·00	79·00	29·00	86·50	149·00	161·00	193·00	85·75	1
68,06,612	39,78,373	1,22,27,794	4,53,57,677	9,21,17,606	2,09,26,406 (f)	78,08,236	10,82,927	32,08,969	90,64,388	1,33,09,835	8,75,711	44,59,270	2
1,56,294	66,394	1,04,069	65,681	78,359	82,744 (g)	74,509	36,129	36,197	59,028	78,775	43,318	43,271	3
98,878	3,64,762	3,44,291	21,14,967	37,60,875	5,76,693	2,60,608	91,557	1,85,386	1,38,962	8,16,030	4,63,576	1,92,555	4
50,943	1,75,540	4,95,234	15,94,462	70,24,583	12,39,266	2,97,688	32,816	1,68,630	4,59,106	7,36,315	3,99,035	92,818	5
2,10,080	5,46,164	8,59,418	37,58,715	1,09,20,630	21,45,910	6,60,022	1,26,379	3,58,812	6,04,386	15,75,691	8,76,826	2,88,390	6
2,04,651	3,30,459	4,84,319	23,56,386	58,00,377	10,52,357	4,05,975	97,279	2,41,702	4,15,215	9,45,260	5,22,189	1,84,895	7
97·42	60·51	56·35	62·69	53·07	49·04	61·51	76·97	67·36	68·70	59·99	59·55	64·11	8
5,429	2,15,705	3,75,099	14,02,329	51,29,252	10,93,553	2,54,047	29,100	1,17,110	1,89,171	6,30,341	3,54,647	1,06,495	9
0·08	5·43	3·07	3·09	5·57	5·23	3·25	2·69	3·65	2·09	4·74	4·09	2·32	10
—	—	—	3·16	—	—	—	—	—	—	—	—	—	11
29,814	81,931	144,702	553,034	1,597,391	225,513	94,110	28,165	78,135	56,675	232,484	136,950	52,661	12
19,934	76,448	154,404	872,748	2,146,863	389,577	150,331	15,922	60,032	129,336	255,254	155,476	48,818	13
49,748	158,379	299,106	1,425,782	3,744,254	615,090	244,441	44,087	138,167	186,011	487,738	292,426	101,479	14
3·32	4·45	2·38	3·82	2·29	2·53	2·77	3·25	2·37	2·45	3·51	3·39	3·66	15
2·56	2·30	3·21	1·82	3·27	3·18	1·98	2·06	2·81	3·55	2·88	2·57	1·90	16
4·22	3·45	2·87	2·63	2·92	3·49	2·70	2·87	2·60	3·25	3·23	2·99	2·84	17
4·11	2·09	1·62	1·65	1·55	1·71	1·66	2·21	1·75	2·23	1·94	1·79	1·82	18
0·11	1·36	1·25	0·98	1·37	1·78	1·04	0·66	0·85	1·02	1·29	1·20	1·02	19
239·61	293·00	163·00	269·87	188·95	142·39	175·00	291·50	207·00	200·00	215·04	232·00	209·68	20
55·60	48·50	55·60	45·19	60·93	54·17	45·50	29·75	57·38	50·52	58·47	47·25	25·90	21
13·60	23·00	10·82	10·76	13·50	13·56	19·00	—	—	0·14	17·11	16·30	10·83	22
17·05	14·00	17·11	15·78	21·32	29·88	24·00	11·93	29·01	16·18	21·69	23·80	11·03	23
10·60	13·00	10·83	7·91	12·82	7·54	7·00	10·37	14·79	17·00	11·68	13·60	13·45	24
11·84	4·00	4·20	9·60	8·34	11·43	6·00	5·96	9·77	6·61	11·63	3·70	8·41	
7,143,835	24,038,300	23,615,484	149,246,844	301,826,920	32,111,069	16,501,747	8,211,128	16,174,371	11,316,576	49,994,556	31,763,240	11,042,000	25
1,108,232	3,707,550	8,585,125	39,436,969	130,807,716	21,104,914	6,839,935	473,735	3,444,864	6,534,452	14,923,488	7,345,971	1,269,023	26
2·62	1·31	1·43	1·02	1·19	1·28	1·13	1·40	1·43	1·83	1·42	1·21	1·58	27
16·15	7·84	5·73	6·89	5·32	5·78	5·86	13·34	5·92	9·98	6·61	7·57	12·00	28
2·57	2·81	2·38	2·59	2·16	2·98	2·71	2·05	2·06	2·14	3·02	2·58	3·05	29
8·17	9·07	11·02	7·75	10·29	11·25	8·14	13·09	9·36	13·31	9·39	10·40	13·97	30

(*d*) Includes the Poradaha Section, Northern Bengal State Railway, and the Ranaghat Section, Bengal Central Railway, except in Nos. 2, 3, 10 and 11. Items 4 to 6 include only the earnings of the Eastern Bengal Railway and its share of the earnings of the Branch lines worked by it.
(*e*) Excludes Colliery, except in No. 2.
(*f*) Includes Poradaha Section.
(*g*) Calculated upon 243 miles, including Poradaha Section.
(*h*) Includes the Pondicherry Railway, except in Nos. 2, 3, 10, and 11.

STATEMENT showing the SYSTEM or SYSTEMS on

Railway.	Length of Line open to Passenger Traffic.			SYSTEM.								
				Worked by Telegraph.			Absolute Block.			Line Clear and Caution Message.		
	Miles.			Miles.			Miles.			Miles.		
	Single.	Double.	Total.	Single.	Double.	Total.	Single.	Double.	Total.	Single.	Double.	Total.
East Indian	(a) 1,023·50	469·00	(a) 1,492·50	(a) 1,023·50	469·00	(a) 1,492·50	45·00	133·75	178·75	951·50	—	951·50
GUARANTEE.												
Madras	816·75	42·50	859·25	—	—	—	136·00	—	136·00	—	—	—
South Indian	(c)663·00	—	(c)663·00	(c)663·00	—	(c)663·00	—	—	—	(c)658·75	—	(c)658·75
Great Indian Peninsula	1,133·75	324·25	(d) 1,458·00	1,121·75	324·25	(d) 1,446·00	1,121·75	324·25	(d) 1,446·00	—	—	—
Bombay, Baroda and Central India.	439·00	22·00	(e)461·00	439·00	22·00	(e)461·00	439·00	18·50	457·50	—	—	—
Eastern Bengal	(f) 172·00	—	(f) 172·00	(g) 173·75	—	(g) 173·75	—	—	—	(g) 173·75	—	(g) 173·75
Sind, Punjab and Delhi	723·00	4·50	727·50	723·00	4·50	727·50	—	—	—	709·00	4·50	713·50
Oudh and Rohilkhand	546·85	—	546·85	546·85	—	546·85	—	—	—	546·85	—	546·85
IMPERIAL STATE.												
Punjab Northern	419·50	—	419·50	419·50	—	419·50	419·50	—	419·50	—	—	—
Indus Valley and Kandahar	652·00	—	652·00	650·00	—	650·00	—	—	—	(h)650·00	—	(h)650·00
Rajputana-Malwa	(k) 1,137·16	1·14	1,138·30	—	—	—	1,137·16	1·14	1,138·30	—	—	—
Sindia	77·50	—	77·50	77·50	—	77·50	11·75	—	11·75	65·75	—	65·75
Wardha Coal	45·00	—	45·00	45·00	—	45·00	—	—	—	45·00	—	45·00
PROVINCIAL STATE.												
Calcutta and South-Eastern	43·00	—	43·00	43·00	—	43·00	—	—	—	43·00	—	43·00
Nalhati	27·25	—	27·25	27·25	—	27·25	—	—	—	27·25	—	27·25
Northern Bengal	230·00	—	230·00	230·00	—	230·00	—	—	—	230·00	—	230·00
Kaunia-Dhurla	35·00	—	35·00	21·00	—	21·00	—	—	—	21·00	—	21·00
Tirhoot (l)	158·75	—	158·75	158·75	—	158·75	—	—	—	158·75	—	158·75
Patna-Gya	57·00	—	57·00	57·00	—	57·00	—	—	—	57·00	—	57·00
Muttra-Hathras	29·00	—	29·00	29·00	—	29·00	29·00	—	29·00	—	—	—
Cawnpore-Farukhabad	86·00	—	86·00	86·00	—	86·00	86·00	—	86·00	—	—	—
Dildarnagar-Ghazipur	11·75	—	11·75	11·75	—	11·75	—	—	—	—	—	—
Nagpur and Chhattisgarh	(m) 149·00	—	(m) 149·00	(n) 149·00	—	(n) 149·00	(n) —	—	(n) —	149·00	—	149·00
Rangoon and Irrawaddy Valley	161·00	—	161·00	161·00	—	161·00	—	—	—	161·00	—	161·00
NATIVE STATES.												
Bhavnagar-Gondal	(o)191·50	—	(o)191·50	191·50	—	191·50	—	—	—	191·50	—	191·50
Gaekwar of Baroda's	59·25	—	59·25	—	—	—	—	—	—	—	—	—
Nizam's	120·44	—	120·44	117·10	—	117·10	117·10	—	117·10	—	—	—
Mysore	—	—	—	—	—	—	—	—	—	—	—	—
ASSISTED COMPANIES.												
Bengal Central	35·50	—	35·50	35·50	—	35·50	—	—	—	35·50	—	35·50
Darjeeling-Himalayan	50·00	—	50·00	50·00	—	50·00	—	—	—	50·00	—	50·00

(a) Includes Barh Branch of the Tirhoot State Railway. (b) Short mineral branches. (c) Including the Pondicherry Branch.
(d) Includes the State lines worked by the Great Indian Peninsula Railway Company. (e) Includes Patri Branch.
(f) Includes the Damukdia Branch of the Northern Bengal State Railway. (g) Including Chitpore Branch.

which the several RAILWAYS are worked.

SYSTEM.															Railway.
Train following.			Train Staff and Ticket.			Train despatching.			Pilot Guard.			One Engine only.			
Miles.			Miles.			Miles.			Miles.			Miles.			
Single.	Double.	Total.	Single.	Double.	Total.	Single.	Double.	Total.	Single.	Double.	Total.	Single.	Double.	Total.	
—	335·25	335·25	(a) 27·00	—	(a) 27·00	—	—	—	—	—	—	(b) 17·00	—	(b) 17·00	East Indian.
															GUARANTEED.
—	—	—	—	—	—	680·75	42·50	723·25	—	—	—	—	—	—	Madras.
—	—	—	4·25	—	4·25	—	—	—	—	—	—	—	—	—	South Indian.
—	—	—	—	—	—	—	—	—	—	—	—	12·00	—	12·00	Great Indian Peninsula.
—	3·50	3·50	—	—	—	—	—	—	—	—	—	—	—	—	Bombay, Baroda and Central India.
—	—	—	—	—	—	—	—	—	—	—	—	14·00	—	14·00	Eastern Bengal.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Sind, Punjab and Delhi.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Oudh and Rohilkhand.
															IMPERIAL STATE.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Punjab Northern.
—	—	—	(i) 2·00	—	(i) 2·00	—	—	—	—	—	—	—	—	—	Indus Valley and Kandahar.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Rajputana-Malwa.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Sindia.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Wardha Coal.
															PROVINCIAL STATE.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Calcutta and South-Eastern.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Nalhati.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Northern Bengal.
—	—	—	14·00	—	14·00	—	—	—	—	—	—	—	—	—	Kaunia-Dhurla.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Tirhoot.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Patna-Gya.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Muttra-Hathras.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Cawnpore-Farukhabad.
—	—	—	11·75	—	11·75	—	—	—	—	—	—	—	—	—	Dildarnagar-Ghazipfir.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Nagpur and Chhattisgarh.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Rangoon and Irrawaddy Valley.
															NATIVE STATES.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Bhavnagar-Gondal.
—	—	—	59·25	—	59·25	—	—	—	—	—	—	—	—	—	Gaekwar of Baroda's.
—	—	—	3·34	—	3·34	—	—	—	—	—	—	—	—	—	Nizam's.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Mysore.
															ASSISTED COMPANIES.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Bengal Central.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Darjeeling.

(h) Caution message being adopted only when electric telegraph communication is completely interrupted, or under special orders. With these exceptions absolute block is maintained by the use of "line clear" only.
(i) Between Sukkur Main and Sukkur Bunder.
(k) Includes 22·75 miles, Muttra-Achnera Railway.
(l) 73·75 miles opened since 1st January 1883.
(m) Includes 3 miles of branch line from Dowhali to Tumsar.
(n) The system in force is practically absolute block, as two trains are not allowed on the same district without express permission of the Traffic Officer.
(o) Exclusive of the distance from Bhavnagar city to Bunder.

RATES AND FARES.

Third class passenger fares, East Indian Railway.

143. On the 1st January 1882 the third or lowest class fare on the East Indian Railway was reduced, from three to two and a half pies, on the Jubbulpore branch and on the main line north-west of Allahabad. On the 1st July 1882 this reduced fare was made general over the whole line.

144. The numbers travelling and the receipts from the lowest class of passenger traffic on this railway are given below for the last six half-years.

	Numbers.	Receipts. Rs.
First half of 1880	3,802,743	42,51,966
Second half of 1880	3,497,621	43,40,205
First half of 1881	3,905,665	45,86,759
Second half of 1881	3,672,028	43,50,680
First half of 1882	*4,645,468	55,76,367
Second half of 1882	4,407,108	43,61,734

145. It will be seen that a great stimulus has been given to the third class passenger traffic by the reduction of fare.

The number of third class passengers, who travelled on the East Indian Railway during 1882, exceeded the similar number in 1881 by 19½ per cent., and that in 1880 by 24 per cent., and it may be confidently expected that the reduction made in the lowest class fare will, by placing the means of travelling within the reach of a larger number of the poorer population, prove remunerative to the railway.

146. A table is attached (pages 60 and 61) which shows the ordinary passenger fares and goods rates, which were in force on the several railways on the 1st January 1883.

Wheat trade and grain rates.

147. The great importance of developing the export of Indian wheat has lately been occupying the attention of the Government of India, and the subject is dealt with at some length in Section VII. of the Financial Statement for the current year, where the Honourable Major Baring draws attention to the fact that in the matter of railway rates American wheat is at a great advantage as compared with that exported from India.

148. The question of railway rates for the carriage of grain from Northern India to the seaboard has of late received very full consideration at the hands of the Chambers of Commerce at Calcutta and Bombay, and of the Agents and Managers of the railways concerned, owing to the through opening of the Rajputana-Malwa Railway, which shortened the route from Delhi to Bombay to 888 miles, as compared with 954 miles the distance from Delhi to Howrah. The Bombay merchants were naturally anxious to obtain the advantages due to the shorter route, and urged that the rates *viâ* Rajputana should be so fixed as to allow of the traffic finding its natural outlet by this route. It has been arranged that from the 1st May the through rate for wheat from Delhi to Bombay should be reduced from 13½ annas to 11 annas per maund, or 18½ per cent.

149. The Agent of the East Indian Railway has also given notice of a reduction, in the rate for carriage of wheat from Delhi to Howrah, from annas 11·20 to annas 10·4 per maund to come into force on the 1st May 1883, and of a further reduction to annas 9·60, from the 1st June 1883, and lower rates have also been quoted on the Sind, Punjab, and Delhi and Indus Valley Railways to Karachi.

150. The rates for the carriage of grain have thus been considerably reduced on the East Indian, Rajputana, and Punjab routes, but in the absence of competition, the Great Indian Peninsula Railway Company have not thought it necessary to make similar reductions. The Bombay Chamber of Commerce is now urging a reduction of rates on the Agent of this Company, and a lower cost of carriage would doubtless, by stimulating the export of wheat from the Central Provinces, ultimately prove remunerative to the railway, as well as beneficial to the districts concerned.

* Part of this increase is due to the Kumbh mela, or fair, at Allahabad in February 1882.

151. In the Punjab much has been done to encourage the wheat trade by improving and cheapening the means of communication with the seaboard. First, and most important, the construction of a railway bridge over the Indus at Sukkur has been sanctioned, and will be put in hand at once. From a commercial as well as a military point of view the completion of this link in the through communication between Karachi and the Punjab is of the greatest importance, and, in the meanwhile, measures are being taken to increase the effective power of the ferry. During the month between the 15th February and 15th March 1883 an average of 300 waggons were crossed daily at Sukkur, and the maximum crossed on any one day was 352. The successful working of this traffic threw a considerable strain on the existing ferry arrangements, but steps are now being taken to considerably increase the siding accommodation at Sukkur, additional ferry barges have lately been purchased from the Sind, Punjab, and Delhi Railway Company, and new winding engines have been indented for from England; and it is hoped that these and other measures, with an addition of 20 locomotive engines recently ordered from the Punjab Northern to the Indus Valley State Railway, will render the latter line able to cope with the large increase of traffic which may be anticipated during the current year from the promising state of the crops in the Punjab.

152. The inadequacy of the existing conveniences at Karachi has been for some time under consideration, and in November last it was agreed that the Harbour Board should reclaim and make over to the Sind, Punjab and Delhi Railway Company an equivalent of sea frontage to that surrendered by the railway for the Merewether pier. The reclamation of the foreshore by the Harbour Board is now well advanced, and the Railway Company intend to build a wharf-wall for boats along the face of the reclaimed land, and to construct shelter-sheds, upon the ground so rendered available, for the accommodation of the wheat trade. The export trade is at present heavily handicapped by the want of return traffic from Karachi, and efforts are being made to remedy this by offering special advantages to, and reducing the rates for, the the up-country traffic.

153. It is confidently expected that the opening of the branch from Raiwind, on the Sind, Punjab, and Delhi Railway to the right bank of the Sutlej, opposite Ferozepur, will do much to stimulate trade.

154. The following figures will serve to show the increase in the wheat traffic on the Indus Valley State Railway during the past year.

Indus Valley State Railway.	Number of Tons of Wheat Carried.	Earnings from Wheat Carried.
		Rs.
1881 " " " " "	82,635	7,95,323
1882 " " " " "	126,770	12,65,162

155. The statements given below, which are taken from the accounts relating to the trade and navigation of British India for the month of March 1883, are interesting as showing the quantity and value of Indian wheat exported to the several countries, and the share of each Indian province in the total quantity of wheat exported.

Principal Countries to which Wheat was Exported.	During the Twelve Months from 1st April to 31st March.					
	Quantity.			Value.		
	1880–81.	1881–82.	1882–83.	1880–81.	1881–82.	1882–83.
	Cwt.	Cwt.	Cwt.	Rs.	Rs.	Rs.
To the United Kingdom -	4,802,233	9,379,236	6,576,133	2,04,57,723	3,96,56,431	2,74,29,366
" Belgium - -	226,156	2,625,227	1,415,049	10,98,708	1,17,64,323	64,58,797
" France - -	1,346,750	5,308,073	3,567,712	64,15,603	2,38,88,858	1,58,82,288
" Holland - -	365,354	712,390	578,246	14,02,242	26,84,211	24,25,664
" Italy - -	136,526	359,318	176,063	6,88,315	16,77,135	7,27,800
" Egypt - -	Nil	919,036	845,450	Nil	38,57,878	37,37,424
" Other Countries -	567,356	560,240	993,112	27,16,825	25,11,979	40,51,831
Total - -	7,444,375	19,863,520	14,151,765	3,27,79,416	8,60,40,815	6,07,13,170

Share of each Province and Port in the total quantity of Wheat Exported.	During the Twelve Months from 1st April to 31st March.					
	Quantity.			Value.		
	1880–81.	1881–82.	1882–83.	1880–81.	1881–82.	1882–83.
	Cwt.	Cwt.	Cwt.	Rs.	Rs.	Rs.
Bengal (Calcutta) - -	3,957,871	6,668,047	4,439,405	1,51,38,212	2,52,07,566	1,79,35,557
Bombay - - -	3,315,070	11,328,585	6,957,752	1,67,63,478	5,13,03,583	2,98,95,916
Sindh (Karachi) - -	169,465	1,852,334	2,739,633	8,67,569	94,82,433	1,28,36,208
Madras - - -	1,969	10,996	6,599	10,157	36,178	22,232
British Burmah - -	Nil	3,558	8,376	Nil	11,055	23,257
Total - -	7,444,375	19,863,520	14,151,765	3,27,79,416	8,60,40,815	6,07,13,170

156. It will be seen that the export during the year 1882–83, though considerably below the exceptionally large export of 1881–82 is 90 per cent. in excess of that for 1880–81.

157. It is interesting to notice that, while the exports from Calcutta have decreased in quantity by 33½ per cent. and those from Bombay by 38½ per cent. the export of wheat from Karachi shows an increase of 48 per cent. in 1882–83 as compared with 1881–82.

158. The foreign export of rice shows a steady increase. That during the twelve months from the 1st April to the 31st March compares as follows for the last three years.

	Quantity in Cwts.		
	1880–81.	1881–82.	1882–83.
From Bengal - - - - -	6,731,454	7,684,878	7,855,151
„ Bombay - - - - -	927,019	615,639	554,103
„ Sindh - - - - -	31,848	48,764	71,473
„ Madras - - - - -	2,755,443	1,776,684	1,448,540
„ British Burmah - - - -	16,820,276	18,762,456	21,330,587
Total - - - -	27,266,040	28,888,421	31,259,854

159. Of the total amount exported in 1882–83, in round numbers, 12,400,000 cwt. were sent to the United Kingdom, and 1,290,000 cwt. to Malta, Mauritius, the West Indies, Ceylon and the Straits Settlements.

International exhibition to be held in Calcutta.

160. It has been decided to hold an International Exhibition at Calcutta, during the next cold season, under the patronage of His Excellency the Viceroy. It is hoped that such an exhibition will have an important effect in promoting the commercial prosperity of India, and that it will, by attracting the attention of foreign countries to the great natural wealth of the country, assist in developing new branches of trade.

Table showing ordinary Passenger Fares and Goods Rates on all Indian Railways on the 1st January 1883.

TABLE showing ORDINARY PASSENGER FARES and GOODS RATES

Names of Railways.	Passenger Fares per Mile. 1st Class.	2nd Class.	Intermediate or 3rd Class.	4th or Lowest Class.	Goods: Special Class per Ton per MILE (a). Food Grain.	Coal.	Goods 1st Per Ton per Mile.
	Pies.	Pies.	Pies.	Pies.	Pies.	Pies.	Pies.
East Indian	18	9	4·50	2·50	(b) 9·07	(c) 4·54	9·07
GUARANTEED.							
Madras	18	7	—	(d) 2	(e) 8	(f) 8	10
South Indian	12	4	—	2	(g) 9	(g) 9	(h)
Great Indian Peninsula	18	9	4	2·50	(i) 8 / 7·50 / 7	6	(i) 10 / 9·50 / 9
Bombay, Baroda and Central India	12	6	—	Mail 3 / Ordinary 2·5	(j) 7·89 / 7·08	(k) 7·89	10·89
Eastern Bengal	12	6	4·50	3	(l) 6·32	(l) 6·07	9·07
S. P. & D. Punjab and Delhi	12	8	4	2·50 / 2·25	(n) 6·80	5·44	9·07
S. P. & D. Sind	12	8	—	2·50 / 2·25	(n) 6·80	5·44	9·07
Oudh and Rohilkhand	—	(o) 9	(p) 3	(q) 2·50	(r) 5·44	5·44	9·80
IMPERIAL STATE.							
Punjab Northern	12	8	3·50	Mail 2·50 / Mixed & Local 2·00	Up 6·80 / Down 4·35	5·44 / 6·80	Same as
Indus Valley and Kandahar	12	8	—	Mail 2·50 / Mixed & Local 2·00	—	—	Do.
Rajputana-Malwa	18	9	3	Mail (u) 2 to 2·66 / Ordinary 2·00	(v) 9·53	(v) 9·53	9·53
Sindia	—	—	—	—	—	—	Same as on
Wardha Coal	18	9	4	2	7·08	5·99	10·00
Dhond-Manmad	—	—	—	—	—	—	Same as on
PROVINCIAL STATE.							
Calcutta and South-Eastern	18	9	3	(w) 2·49	(x) 9·07	(x) 9·07	9·07
Nalhati	18	6	—	3	(y) 12·09	(y) 12·09	(y) 12·09
Northern Bengal	18	9	4·50	2·50	(z) 9·07	9·07	9·07
Tirhoot	18	9	—	2·50	6·80	5·44	9·07
Patna-Gya	—	—	—	—	—	—	Same as on
Muttra-Hathras	15	8	—	2·00	7·62	7·62	9·00
Muttra-Achnera	—	—	—	—	—	—	Same as on
Cawnpore-Farukhabad	15	8	—	2	7·62	7·62	9·00
Dildarnagar-Ghazipur	—	—	—	—	—	—	Same as on
Nagpur and Chhattisgarh	18	8	4	2	8·17	5·99	10·00
Rangoon and Irrawaddy Valley	(aa) 14·90	(aa) 7·45	—	(aa) 2·98	(ab) 12·79	(ab) 12·79	(ac) 12·79
NATIVE STATES.							
Bhopal	—	—	—	—	—	—	Same as on
Bhavnagar-Gondal	12	6	—	2·50	7	8	10·88
Gaekwar of Baroda's	—	(o) 7	—	(q) 3·00	—	—	Same as on
Khamgaon	—	—	—	—	—	—	Same as on
Amraoti	—	—	—	—	—	—	Same as on
Nizam's	18	6	—	2	—	—	Do.
Mysore	12	6	—	3	9·00	9·00	(ad) 9·00

(a) All special goods other than food-grains and coal are generally carried at first-class rates; but special rates are charged for large consignments carried over long distances.

(b) Reduced rates are charged on consignments of not less than 270 maunds consigned over 100 miles, viz., 0·17 pie per maund per mile for extra distances from 101 to 450 miles, and 0·12 pie per maund per mile for extra distances above 450 miles.

(c) This rate is only charged for coal consigned for stations not less than 300 miles distant in full truck loads.

(d) The coolie class was introduced on the Madras Railway in the first half of 1869, and it was in existence till the end of June 1879.

(e) Grain of all kinds in consignments of not less than 270 maunds, if consigned not less than 150 miles, is charged at 6 pies per 27 maunds per mile; and if consigned not less than 250 miles, at 5 pies per 27 maunds per mile.

(f) When sent in waggon loads of not less than 10 tons, the rate charged is 6 pies per 27 maunds per mile.

(g) A rate of 6½ pies per 27 maunds per mile is charged on consignments of grain and seeds of not less than 216 maunds carried for distances of 300 miles and upwards, at owner's risk, in through booking with the Madras Railway; and also locally for consignments of not less than 162 maunds. Coal from Cuddalore O. T. to Nellikuppam is charged at Rs. 3 per truck.

(h) On the South Indian Railway, all goods (not in the excepted list) are carried at 0·33 pie per maund per mile. In through booking with the Madras Railway, the rate charged for goods (not in the excepted list) named in the 2nd, 3rd, 4th, and 5th classes of the Madras Railway classification book is 0·5 per maund per mile, and for special and 1st-class goods named in the Madras Railway tariff, 0·33 pie per maund per mile. Excepted goods are carried at one pie per maund per mile, and all articles of an explosive or combustible character at 2 pies per maund per mile.

(i) According to distance, *i.e.*, the 1st rate is charged for goods carried up to 400 miles; 2nd, for goods carried from 400 to 600 miles; and 3rd, for goods carried above 600 miles. Other reduced rates than those shown in this statement are also charged for grain when despatched to and from certain stations.

(j) For distances up to 150 miles at 7·89 pies and 151 to 400 miles at 7·08 pies per ton per mile, but the charge for distances above 150 miles will be the same as for 150 miles until it amounts to more calculated at 7·08 pies. When booked through between Bombay, Baroda and Rajputana-Malwa Railways, the Bombay, Baroda charge, with certain special exceptions, is 6·81 pies per ton per mile.

(k) With certain fixed rates not calculated on this basis for certain stations.

(l) These are the lowest rates charged when sent in consignments of not less than 200 maunds.

(m) The number of classes was reduced from 5 to 3 in 1878. As the present 2nd and 3rd-class rates correspond exactly with those charged for 3rd and 4th class goods respectively on the East Indian Railway, they are shown under these classes in this statement.

on all INDIAN RAILWAYS on the 1st January 1883.

Rates.									Names of Railways.
Class.		2nd Class.		3rd Class.		4th Class.		5th Class.	
Per Maund per Mile.		Per Ton per Mile.	Per Maund per Mile.	Per Ton per Mile.	Per Maund per Mile.	Per Ton per Mile.	Per Maund per Mile.	Per Ton per Mile.	Per Maund per Mile.	
Pies.		Pies.	Pies.	Pies.	Pies.	Pies.	Pies.	Pies.	Pies.	
0·33		13·61	0·50	18·15	0·67	22·68	0·83	27·22	1·00	East Indian.
										GUARANTEED.
0·37		14·00	0·52	18·00	0·67	24·00	0·89	36·00	1·33	Madras.
	(h)	(h)	(h)	(h)	(h)	(h)	(h)	(h)	(h)	South Indian.
(i)	0·37	(i) 14·00	(i) 0·52	(i) 23·80	(i) 0·88	(i) 34·00	(i) 1·26	(i) 48·00	(i) 1·78	Great Indian Peninsula.
	0·35	14·00	0·52	22·00	0·81	28·00	1·04	42·00	1·56	
	0·33	13·50	0·50	20·00	0·74	25·00	0·93	34·00	1·26	
0·40		16·33	0·60	21·78	0·80	27·22	1·00	32·66	1·20	Bombay, Baroda and Central India.
0·33		—	—	(m) 18·15	(m) 0·67	—	—	(m) 27·22	(m) 1·00	Eastern Bengal.
0·33		13·61	0·50	18·15	0·67	22·68	0·83	27·22	1·00	S. P. & D. Punjab and Delhi.
0·33		13·61	0·50	18·15	0·67	22·68	0·83	27·22	1·00	S. P. & D. Sind.
(s) 0·25		(s) 13·61	(s) 0·50	(t) 18·15	(t) 0·67	—	—	(s) 27·22	(s) 1·00	Oudh and Rohilkhand.
										IMPERIAL STATE.
on the Sind, Punjab and Delhi Railway.					—	—	—	—	—	Punjab Northern.
do.		do.	do.	—	—	—	—	—	—	Indus Valley and Kandahar.
0·35		14·29	0·53	19·05	0·70	23·14	0·85	27·22	1·00	Rajputana-Malwa.
the East Indian Railway.				—	—	—	—	—	—	Sindia.
0·37		13·88	0·51	23·96	0·88	34·30	1·26	48·45	1·78	Wardha Coal.
the Great Indian Peninsula Railway.					—	—	—	—	—	Dhond-Manmad.
										PROVINCIAL STATE.
0·33		18·15	0·67	27·22	1·00	—	—	—	—	Calcutta and South-Eastern.
(y) 0·44		(y) 18·15	(y) 0·67	(y) 24·19	(y) 0·89	(y) 36·29	(y) 1·33	(y) 72·58	(y) 2·67	Nalhati.
0·33		18·15	0·67	27·22	1·00	—	—	—	—	Northern Bengal.
0·33		13·61	0·50	18·15	0·67	22·68	0·83	27·22	1·00	Tirhoot.
the East Indian Railway.				—	—	—	—	—	—	Patna-Gya.
0·33		13·61	0·50	18·00	0·66	22·68	0·83	27·22	1·00	Muttra-Hathras.
the Rajputana, Malwa Railway.				—	—	—	—	—	—	Muttra-Achnera.
0·33		13·61	0·50	18·00	0·66	22·68	0·83	27·22	1·00	Cawnpore-Farukhabad.
the East Indian Railway.				—	—	—	—	—	—	Dildarnagar-Ghaziput.
0·37		14·15	0·52	23·96	0·88	34·30	1·26	48·18	1·77	Nagpur and Chhattisgarh.
(ac) 0·47		(ac) 17·15	(ac) 0·63	(ac) 20·96	(ac) 0·77	—	—	—	—	Rangoon and Irrawaddy Valley.
										NATIVE STATES.
the Great Indian Peninsula Railway.				—	—	—	—	—	—	Bhopal.
0·40		16·33	0·60	21·78	0·80	27·22	1·00	32·66	1·20	Bhavnagar-Gondal.
the Bombay, Baroda and Central India Railway.				—	—	—	—	—	—	Gaekwar of Baroda's.
the Great Indian Peninsula Railway.				—	—	—	—	—	—	Khamgaon.
										Amraoti.
do.		do.	do.	—	—	—	—	—	—	Nizam's.
(ad) 0·33		(ad) 13·50	(ad) 0·50	(ad) 27·00	(ad) 1·00	—	—	—	—	Mysore.

(n) Edible grain when booked to Kurrachee and Kiamari from stations between Delhi and Mooltan are charged at 4·32 pies per ton per mile.
(o) Called Upper class.
(p) Called Lower Reserved or Intermediate class.
(q) Called Lower class.
(r) A reduced rate of ¼th pie per maund per mile is charged for grain when carried in quantities of not less than 270 maunds, and for distances of not less than 250 miles.
(s) There are three classes only on this line—low, middle, and high. The special class rate is one-fifth of a pie per maund per mile.
(t) Applicable to loose cotton only.
(u) The fares for 3rd class passengers by mail trains vary according to distance, *i.e.*, 2⅝ pies per mile for first 100 miles, 2¾ pies for next 100 miles, 2½ pies for next 200 miles and 2 pies for any distance above 400 miles.
(v) When tendered in consignments of not less than 270 maunds the rates charged are for distances from 1 to 100 miles 0·35 pie per maund per mile, from 101 to 200 miles 0·25 pie from 201 to 400 miles 0·15 pie, and over 400 miles 0·10 pie.
(w) Average fare charged during the second half of 1882. There is no fixed mileage rate. This fare is only charged to gardeners.
(x) When carried in consignments of not less than 5 tons or 140 maunds the rate charged is ½ pie per maund per mile.
(y) Calculated from the rates charged for goods carried over the entire length, the rates appear to be as shown in this statement. The through rate for grains from Azimganj to Howrah and *vice versâ* in consignments of not less than 220 maunds is Rs. 21-14-0 per 100 maunds. In consignments less than 220 maunds but over 50 maunds, the rate is Rs. 25 per 100 maunds. The through rate for coal from Raneegunge, Sigrsol, and Nimcha to Azimganj is Rs. 24 per 100 maunds (East Indian Railway share Rs. 18 and Nalhati Railway Rs. 6).
(z) For distances over 70 miles the rate charged is 0·25 pie per maund per mile or 6·80 pies per ton per mile.
(aa) These are average mileage fares charged. The actual fares charged are from station to station, viz., annas 10, 5, and 2 for the three classes respectively.
(ab) Reduced rates are charged on consignments when sent in full waggon loads.
(ac) The rates in force are from station to station, viz., 8 annas 6 pies per ton for 1st class goods, 11 annas 6 pies for 2nd class, and 14 annas for 3rd class. The mileage rates shown in this statement are calculated on the basis of these station to station rates.
(ad) There are three classes only, called Upper, Middle, and Lower.

STATEMENT showing the PASSENGER TRAFFIC on the several

Railway.	PASSENGER					
	First Class.		Second Class,		Third or Intermediate.	
	Number.	Receipts.	Number.	Receipts.	Number.	Receipts.
		Rs.		Rs.		Rs.
East Indian (*a*)	45,739	5,12,003	161,883	6,64,437	602,130	4,90,159
GUARANTEED						
Madras	14,520	1,85,412	61,191	2,13,594	—	—
South Indian	7,807	48,433	42,622	62,069	—	—
Great Indian Peninsula (*c*)	36,277	4,17,091	165,982	7,82,423	686,879	10,88,466
Bombay, Baroda, and Central India (*d*)	65,605	94,280	469,728	2,23,741	(*e*)403,684	(*e*)6,21,194
Eastern Bengal (*g*)	30,223	61,150	68,037	57,178	405,840	2,38,952
Sind, Punjab, and Delhi	24,229	1,50,382	61,293	1,82,179	13,749	24,345
Oudh and Rohilkhand	—	—	(*h*)25,206	(*h*)92,121	—	—
IMPERIAL STATE.						
Punjab Northern	7,528	45,306	22,953	58,754	1,495,958	9,87,163
Indus Valley and Kandahár.	2,949	27,369	12,496	45,915	—	—
Rajputana-Malwa	15,272	1,30,211	48,399	1,23,230	59,102	63,959
Sindia	(*k*)	(*k*)	(*k*)	(*k*)	(*k*)	(*k*)
Wardha Coal	478	997	438	498	2,214	1,302
PROVINCIAL STATE.						
Calcutta and South-Eastern	787	1,174	5,684	3,920	555,255	76,668
Nalhati	670	1,752	3,478	3,059	—	—
Northern Bengal	4,221	48,328	7,756	37,607	14,845	34,040
Kaunia-Dhurla	640	2,159	1,879	2,963	—	—
Tirhoot	3,523	13,741	4,437	8,791	—	—
Patna-Gya	1,621	7,348	3,629	6,986	—	—
Muttra-Hathras	456	1,043	1,447	1,546	—	—
Muttra-Achnera	(*k*)	(*k*)	(*k*)	(*k*)	(*k*)	(*k*)
Cawnpore Farukhabad	725	2,662	2,245	4,467	—	—
Dildarnagar-Ghazipur	(*k*)	(*k*)	(*k*)	(*k*)	(*k*)	(*k*)
Nagpur and Chhattisgarh	2,622	3,330	15,211	6,113	15,583	4,361
Rangoon and Irrawaddy Valley	3,898	12,971	16,891	21,446	—	—
NATIVE STATES.						
Bhopal	195	164	823	331	2,091	507
Bhavnagar-Gondal	1,961	5,961	11,830	14,784	—	—
Gaekwar of Baroda's	—	—	(*h*)3,096	(*h*)2,129	—	—
Nizam's	3,040	20,550	18,291	40,858	—	—
Mysore	3,853	8,850	7,644	6,670	—	—
ASSISTED COMPANIES.						
Darjeeling-Himalayan	(*k*)	(*k*)	(*k*)	(*k*)	(*k*)	(*k*)
Total of all Railways	278,839	18,02,654	1,244,569	26,66,909	4,256,830	36,31,096

(*a*) Includes Barh Branch of the Tirhoot State Railway.
(*b*) Total reduced by Rs. 3,289 on account of outstanding irrecoverable.
(*c*) Includes Dhond and Manmad and Berar State lines.
(*d*) Includes Patri Branch.
(*e*) Lowest class by mail trains.

RAILWAYS during the year ending 31st December 1882.

Traffic.					Railway.
Fourth or Lowest.		Other Coaching Traffic.	Total.		
Number.	Receipts.		Number.	Receipts.	
9,627,597	Rs. 99,99,999	Rs. 15,29,000	10,437,349	Rs. (b)1,31,92,309	East Indian (a).
					GUARANTEED
4,277,015	20,48,914	4,52,282	4,352,726	29,00,202	Madras.
3,792,617	19,03,264	1,01,201	3,843,046	21,14,967	South Indian.
5,282,408	36,39,269	13,91,055	6,171,046	73,18,304	Great Indian Peninsula (c).
(f)7,488,886	(f)20,26,146	3,49,481	8,427,963	33,14,842	Bombay, Baroda, and Central India (d).
1,910,100	10,27,792	1,63,387	2,414,200	15,48,439	Eastern Bengal (g).
4,129,650	27,97,299	4,46,906	4,228,921	36,01,111	Sind, Punjab, and Delhi.
(i)2,751,005	(i)19,32,258	1,57,868	2,776,211	21,82,247	Oudh and Rohilkhand.
					IMPERIAL STATE.
391,248	1,37,463	1,67,806	1,917,687	13,96,492	Punjab Northern.
1,487,372	8,49,828	1,95,355	1,502,817	11,18,467	Indus Valley and Kandahar.
4,947,815	30,85,156	3,58,339	5,070,588	37,60,875	Rajputana-Malwa.
(k)	(k)	(k)	(k)	1,97,672	Sindia.
113,312	28,825	3,401	116,442	35,023	Wardha Coal.
					PROVINCIAL STATE.
161,956	14,793	3,223	723,682	98,878	Calcutta and South-Eastern.
111,925	36,689	4,512	116,073	46,012	Nalhati.
657,802	3,78,325	72,393	684,624	5,70,693	Northern Bengal.
57,963	24,131	4,993	60,482	34,246	Kaunia-Dhurla.
483,701	2,10,165	27,904	491,661	2,60,608	Tirhoot.
618,989	3,38,099	12,329	624,239	3,64,762	Patna-Gya.
396,764	84,954	4,014	398,667	91,557	Muttra-Hathras.
(k)	(k)	(k)	(k)	56,939	Muttra-Achnera.
613,281	1,66,658	11,579	616,251	1,85,366	Cawnpore-Farukabad.
(k)	(k)	(k)	(k)	(k)	Dildarnagar-Ghazipur.
557,910	1,12,287	12,871	591,326	1,38,962	Nagpur and Chhattisgarh.
1,554,186	7,53,918	27,695	1,574,975	8,16,030	Rangoon and Irrawaddy Valley.
					NATIVE STATES.
33,958	5,526	517	37,067	7,045	Bhopal.
680,063	4,06,784	36,047	693,854	4,63,576	Bhavnagar-Gondal.
(i)280,876	(i)83,965	2,291	283,972	88,385	Gaekwar of Baroda's.
379,753	2,31,806	51,077	401,084	3,44,291	Nizam's.
307,528	1,60,232	16,803	319,025	1,92,555	Mysore.
					ASSISTED COMPANIES.
(k)	(k)	(k)	(k)	(k)	Darjeeling-Himalayan.
53,095,682	3,24,84,545	56,04,329	58,875,918	4,64,40,855	Total of all Railways.

(f) Lowest class by ordinary trains.
(g) Includes Poradaha Section of the Northern Bengal State Railway and Ranaghat Section of the Bengal Central Railway.
(h) Upper class.
(i) Lower class.
(k) Information not available.

STATEMENT showing the GOODS TRAFFIC on the several

Railway.	Goods							
	General Merchandise.		Military Stores.		Railway Materials for Construction.		Coal for the Public and Construction.	
	Tons.	Receipts.	Tons.	Receipts.	Tons.	Receipts.	Tons.	Receipts.
		Rs.		Rs.		Rs.		Rs.
East Indian (*a*) - -	2,078,320	2,55,91,918	13,135	5,00,125	300,129	1,99,014	867,620	51,18,510
GUARANTEED.								
Madras - - -	480,637	36,34,610	3,271	95,433	78	414	587	4,045
South Indian - - -	415,403	14,40,555	295	7,399	100,314	37,563	—	—
Great Indian Peninsula (*c*) -	1,591,480	2,60,30,303	13,892	3,25,299	37,730	65,814	41,181	1,05,088
Bombay, Baroda, and Central India (*d*).	681,293	61,11,301	2,250	47,745	17,875	22,573	16,206	1,13,115
Eastern Bengal (*e*) - -	1,482,164	37,74,847	352	3,000	—	—	54,020	1,06,712
Sind, Punjab, and Delhi -	901,545	50,93,823	8,250	1,27,531	25,604	29,301	30,734	1,82,751
Oudh and Rohilkhand - -	589,975	23,49,272	3,311	20,407	35,651	28,238	3,423	6,557
IMPERIAL STATE.								
Punjab Northern - -	189,282	12,30,435	2,406	55,926	40,648	1,86,765	—	—
Indus Valley and Kandahar -	331,701	30,66,312	835	28,542	396,211	2,27,332	19	153
Rajputana-Malwa - -	595,476	64,68,931	5,025	52,964	167,134	1,89,126	2,136	12,414
Sindia - - -	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)
Wardha Coal - - -	34,076	57,918	2	8	1,592	1,485	61,290	90,032
PROVINCIAL STATE.								
Calcutta and South-Eastern -	40,886	41,299	—	—	8,663	3,817	2,375	1,498
Nalhati - - -	8,731	19,223	1	4	—	—	2,477	4,017
Northern Bengal - -	162,089	11,60,240	188	2,977	4,430	9,737	3,253	17,233
Kaunia-Dhurla - -	(*f*)	7,119	(*f*)	88	(*f*)	72	—	—
Tirhoot - - -	101,798	2,04,889	15	92	37,852	53,236	20,693	26,937
Patna-Gya - - -	57,047	1,44,259	1	5	11,922	19,212	4,249	10,289
Muttra-Hathras - -	29,224	31,008	91	221	16	18	467	835
Muttra-Achnera - - -	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)
Cawnpore-Farukhabad -	39,460	1,49,936	1,028	10,652	808	470	996	4,045
Dildarnagar-Ghazipur - -	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)
Nagpur and Chhattisgarh -	114,811	4,17,092	538	419	30,226	25,799	559	920
Rangoon and Irrawaddy Valley	174,677	6,85,832	—	4	17,544	13,318	599	946
NATIVE STATES.								
Bhopal - - -	(*g*)	7,005	—	—	—	—	—	—
Bhavnagar-Gondal - -	50,046	3,38,636	—	—	64,678	52,202	4,483	2,958
Gaekwar of Baroda's - -	28,126	52,922	—	—	20	6	38	67
Nizam's - - -	84,356	4,60,820	1,685	20,409	3,055	2,210	194	831
Mysore - - - -	12,462	54,567	7	67	6,387	33,994	—	—
ASSISTED COMPANIES.								
Darjeeling-Himalayan - -	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)
Total of all Railways -	9,275,065	8,86,25,072	56,578	12,99,317	1,308,567	12,01,716	1,117,549	58,09,953

(*a*) Includes Barh Branch of the Tirhoot State Railway.
(*b*) Total reduced by Rs. 1,640 on account of outstandings irrecoverable.
(*c*) Includes Dhond and Manmad and Berar State Railways.
(*d*) Includes Patri Branch.

RAILWAYS during the year ending 31st December 1882.

TRAFFIC.									
Coal for Revenue only.		Revenue Stores other than Coal.		Live Stock.		Miscellaneous.	Total.		Railway.
Tons.	Receipts.	Tons.	Receipts.	Tons.	Receipts.	Receipts.	Tons.	Receipts.	
	Rs.		Rs.		Rs.	Rs.		Rs.	
208,910	4,82,414	915,538	7,86,123	660	41,315	49,697	4,384,312	3,27,67,476 (*b*)	East Indian (*a*).
									GUARANTEED.
37	172	225,507	78,963	938	19,485	7,981	711,005	38,41,103	Madras.
10,182	15,549	395,347	89,042	170	3,049	1,305	921,711	15,94,462	South Indian.
134,566	4,56,054	325,640	4,68,542	9,017	92,004	35,149	2,153,506	2,75,78,253	Great Indian Peninsula (*c*).
16,982	37,531	75,781	1,26,550	10,376	1,90,056	4,448	820,763	66,53,319	Bombay, Baroda, and Central India (*d*).
26,306	37,600	24,447	35,280	23	225	14,130	587,312	39,71,794	Eastern Bengal (*e*).
34,012	1,23,620	128,454	1,85,094	599	14,139	21,779	1,129,198	57,78,038	Sind, Punjab, and Delhi.
43,266	2,05,143	149,204	98,327	20	449	7,035	824,850	27,15,428	Oudh and Rohilkhand.
									IMPERIAL STATE.
17,990	73,913	13,469	35,246	263	4,301	47,592	264,058	16,34,178	Punjab Northern.
9,930	61,177	77,429	78,946	1,623	22,759	14,105	817,74	34,99,326	Indus Valley and Kandahar.
46,391	1,95,404	73,148	89,883	56	2,389	13,472	589,36	70,24,583	Rajputana-Malwa.
(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	1,27,345	Sindia.
92	98	4,598	10,766	—	—	165	101,650	1,60,472	Wardha Coal.
									PROVINCIAL STATE.
18	9	768	428	24	108	3,784	52,734	50,943	Calcutta and South-Eastern.
11	16	436	339	—	—	735	11,656	24,334	Nalhati.
13,879	31,187	6,284	16,056	—	—	1,836	190,123	12,39,266	Northern-Bengal.
(*f*)	26	(*f*)	8	—	—	42	(*f*)	7,355	Kaunia-Dhurla.
3,481	2,818	1,766	1,880	—	—	7,836	165,605	2,97,688	Tirhoot.
6	8	926	1,398	—	—	369	74,151	1,75,540	Patna-Gya.
156	169	44	51	—	—	514	29,998	32,816	Muttra-Hathras.
(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	9,538	Muttra-Achnera.
110	277	5,664	2,590	—	—	660	48,066	1,68,630	Cawnpore-Farukhabad.
(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	Dildarnagar-Ghazipur.
1,969	4,333	27,464	4,494	1	18	6,031	175,568	4,59,106	Nagpur and Chhattisgarh.
5,214	1,528	9,613	11,150	1,371	17,260	6,277	209,018	7,36,315	Rangoon and Irrawaddy Valley.
									NATIVE STATES.
—	—	—	—	(*g*)	1	121	(*g*)	7,127	Bhopal.
1,280	1,388	1,533	2,500	10	219	1,132	122,030	3,99,035	Bhavnagar-Gondal.
252	124	3,676	1,762	7	21	314	32,119	55,216	Gaekwar of Baroda's.
3	11	5,045	6,123	251	2,201	2,629	94,589	4,95,234	Nizam's.
27	82	3,199	3,150	25	459	499	22,107	92,818	Mysore.
									ASSISTED COMPANIES.
(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	Darjeeling-Himalayan.
575,070	17,30,651	2,474,980	21,34,691	25,434	4,10,458	2,49,637	14,833,243	10,15,96,738	Total of all Railways.

(*e*) Includes Poradaha Section of the Northern Bengal State Railway and Ranaghat Section of the Bengal Central Railway.
(*f*) Information not available.
(*g*) Information not available. Line worked by Great Indian Peninsula Railway Company.

STATEMENT showing the TOTAL RECEIPTS and EXPENSES and the NET RECEIPTS per TRAIN

Railway.	Coaching Receipts.		Goods Receipts.		Total Traffic Receipts.		Miscel- (including Re-
	Rs.	Per Passenger Train Mile.	Rs.	Per Goods Train Mile.	Rs.	Per Train Mile.	Rs.
East Indian (*a*)	1,31,92,309	4·39	3,27,67,476	5·42	4,59,59,785	5·08	11,57,809
GUARANTEED.							
Madras	29,00,202	3·26	38,41,103	3·58	67,41,305	3·43	1,77,266
South Indian	21,14,967	3·83	15,94,462	1·82	37,09,429	2·60	49,286
Great Indian Peninsula (*b*)	73,18,304	2·87	2,75,78,253	4·95	3,48,96,557	4·30	4,66,644
Bombay, Baroda, and Central India (*d*)	33,14,842	3·95	66,53,319	7·27	99,68,161	5·67	2,08,028
Eastern Bengal (*e*)	15,48,439	4·89	39,71,794	8·31	55,20,233	6·95	6,65,491
Sind, Punjab, and Delhi	36,01,111	3·13	57,78,038	3·76	93,79,149	3·49	6,53,175
Oudh and Rohilkhand	21,82,247	4·37	27,15,428	3·08	48,97,675	3·55	3,65,169
IMPERIAL STATE.							
Punjab Northern	13,96,492	2·64	16,34,178	3·48	30,30,670	3·04	99,842
Indus Valley and Kandahar	11,18,467	2·52	34,99,326	2·39	46,17,793	2·42	4,94,767
Rajputana-Malwa	37,60,875	2·29	70,24,583	3·27	1,07,85,458	2·88	1,44,172
Sindia	1,97,672	5·99	1,27,345	2·36	3,25,017	3·74	4,282
Wardha Coal	35,023	1·23	1,60,472	3·26	1,95,495	2·52	56,428
PROVINCIAL STATE.							
Calcutta and South-Eastern	98,878	3·32	50,943	2·56	1,49,821	3·01	60,259
Nalhati	46,012	1·83	24,334	1·57	70,346	2·73	1,328
Northern Bengal	5,70,693	2·53	12,39,266	3·18	18,09,959	2·94	3,35,951
Kaunia-Dhurla	34,246	2·60	7,355	0·66	41,601	1·72	56,087
Tirhoot	2,60,608	2·77	2,97,688	1·98	5,58,296	2·28	1,01,726
Patna-Gya	3,64,762	4·45	1,75,540	2·30	5,40,302	3·41	5,862
Muttra-Hathras	91,557	3·25	32,816	2·06	1,24,373	2·82	2,006
Muttra-Achnera	56,939	(*f*)	9,538	(*f*)	66,477	(*f*)	1,316
Cawnpore-Farukhabad	1,85,366	2·37	1,68,630	2·81	3,53,996	2·56	4,816
Dildarnagar-Ghazipur	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)
Nagpur and Chhattisgarh	1,38,962	2·45	4,59,106	3·55	5,98,068	3·22	6,318
Rangoon and Irrawaddy Valley	8,16,030	3·51	7,36,315	2·88	15,52,345	3·18	23,346
NATIVE STATES.							
Bhopal	7,045	2·75	7,127	4·49	14,172	3·41	204
Bhavnagar-Gondal	4,63,576	3·39	3,99,035	2·57	8,62,611	2·95	14,225
Gaekwar of Baroda's	88,385	2·68	55,216	2·02	1,43,601	2·38	421
Nizam's	3,44,291	2·38	4,95,234	3·21	8,39,525	2·81	19,893
Mysore	1,92,555	3·66	92,818	1·90	2,85,373	2·81	3,017
ASSISTED COMPANIES.							
Darjeeling-Himalayan	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)
Total of all Railways	4,64,40,855	3·40	10,15,96,738	4·41	14,80,37,593	4·03	51,19,134

(*a*). Includes Barh Branch of the Tirhoot State Railway.
(*b*) Includes Dhond-Manmad and Berar State lines.
(*c*) Includes Rs. 2,40,023 on account of rent of leased lines.
(*l*) Includes Patri Branch.

MILE on the several RAILWAYS during the YEAR ending 31st December 1882.

laneous Steamboat ceipts).	Gross Receipts.		Working Expenses.		Net Receipts.		Railway.
Per Train Mile.	Rs.	Per Train Mile.	Rs.	Per Train Mile.	Rs.	Per Train Mile.	
0·13	4,71,17,594	5·20	1,74,05,084	1·92	2,97,12,511	3·28	East Indian (*a*).
							GUARANTEED.
0·09	69,18,571	3·52	43,47,730	2·21	25,70,841	1·31	Madras.
0·03	37,58,715	2·63	23,56,386	1·65	14,02,329	0·98	South Indian.
0·06	3,53,63,201	4·36	1,69,73,345	2·09	(*c*) 1,83,89,856	2·27	Great Indian Peninsula (*b*).
0·12	1,01,76,189	5·79	51,65,317	2·94	50,10,872	2·85	Bombay, Baroda, and Central India (*d*).
0·76	61,25,724	7·71	24,87,286	3·13	36,38,438	4·58	Eastern Bengal (*e*).
0·25	1,00,32,324	3·74	66,21,444	2·46	34,10,880	1·27	Sind, Punjab, and Delhi.
0·27	52,62,844	3·82	34,61,473	2·51	18,01,371	1·31	Oudh and Rohilkhand.
							IMPERIAL STATE.
0·10	31,30,512	3·14	26,21,494	2·63	5,09,018	0·51	Punjab Northern.
0·26	51,12,560	2·68	35,36,447	1·85	15,76,113	0·83	Indus Valley and Kandahar.
0·04	1,09,29,630	2·92	58,00,377	1·55	51,29,252	1·37	Rajputana-Malwa.
0·05	3,29,299	3·79	2,37,068	2·73	92,231	1·06	Sindia.
0·72	2,51,923	3·24	1,93,480	2·49	58,443	0·75	Wardha Coal.
							PROVINCIAL STATE.
1·21	2,10,080	4·22	2,04,651	4·11	5,429	0·11	Calcutta and South-Eastern.
0·03	71,674	1·76	52,356	1·29	19,318	0·47	Nalhati.
0·55	21,45,910	3·49	10,52,357	1·71	10,93,553	1·78	Northern Bengal.
2·31	97,688	4·03	92,448	3·81	5,240	0·22	Kaunia-Dhurla.
0·42	6,60,022	2·70	4,05,975	1·66	2,54,047	1·04	Tirhoot.
0·04	5,46,164	3·45	3,30,459	2·09	2,15,705	1·36	Patna-Gya.
0·05	1,26,379	2·87	97,279	2·21	29,100	0·66	Muttra-Hathras.
(*f*)	67,793	(*f*)	58,588	(*f*)	9,205	(*f*)	Muttra-Achnera.
0·04	3,58,812	2·60	2,41,702	1·75	1,17,110	0·85	Cawnpore-Farukhabad.
(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	Dildarnagar-Ghazipur.
0·03	6,04,386	3·25	4,15,215	2·23	1,89,171	1·02	Nagpur and Chhattisgarh.
0·05	15,75,691	3·23	9,45,260	1·94	6,30,431	1·29	Rangoon and Irrawaddy Valley.
							NATIVE STATES.
0·05	14,376	3·46	11,672	2·81	2,704	0·65	Bhopal.
0·04	8,76,836	2·99	5,22,189	1·78	3,54,647	1·21	Bhavnagar-Gondal.
0·01	1,44,022	2·39	97,275	1·62	46,747	0·77	Gaekwar of Baroda's.
0·06	8,59,418	2·87	4,84,319	1·62	3,75,099	1·25	Nizam's.
0·03	2,88,390	2·84	1,84,895	1·82	1,03,495	1·02	Mysore.
							ASSISTED COMPANIES.
(*f*)	3,66,474	(*f*)	(*g*) 2,77,429	(*f*)	89,045	(*f*)	Darjeeling-Himalayan.
0·14	15,35,23,201	4·17	7,66,81,000	2·08	7,68,42,201	2·09	Total of all Railways.

(*e.*) Includes working expenses, and share of earnings of the Poradaha Section of the Northern Bengal State Railway, and Ranaghat Section of the Bengal Central Railway.
(*f.*) Information not available.
(*g.*) Including debenture interest.

TABLE showing EXPENDITURE on REVENUE ACCOUNT on the several

Railway.	Maintenance of Way, Works and Stations.			Locomotive.			Carriage and Waggon.			Traffic.		
	Amount.	Per Train Mile.	Per cent. of Gross Receipts.	Amount.	Per Train Mile.	Per cent. of Gross Receipts.	Amount.	Per Train Mile.	Per cent. of Gross Receipts.	Amount.	Per Train Mile.	Per cent. of Gross Receipts.
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	
East Indian	65,75,877	0·73	13·96	44,26,604	0·49	9·39	14,73,499	0·16	3·13	27,53,616	0·30	5·84
GUARANTEED.												
Madras	12,70,847	0·65	18·37	13,56,842	0·69	19·69	5,16,595	0·26	7·47	6,90,463	0·35	9·98
South Indian	(a) 6,56,556	0·46	17·47	(a) 8,02,737	0·56	21·36	(a) 2,38,748	0·17	6·35	(a) 3,38,581	0·24	9·01
Great Indian Peninsula (b).	42,44,514	0·52	12·00	60,61,041	0·75	17·14	27,31,733	0·34	7·73	23,46,141	0·29	6·63
Bombay, Baroda, and Central India (c).	18,44,208	1·05	18·13	14,56,357	0·83	14·31	5,43,643	0·31	5·34	6,46,324	0·37	6·35
Eastern Bengal	(d) 4,19,780	0·53	6·85	(e) 4,88,849	0·61	7·98	(e) 1,58,654	0·20	2·59	(e) 5,92,356	0·75	9·67
Sind, Punjab, and Delhi	13,58,203	0·51	13·54	24,24,875	0·90	24·17	7,23,081	0·27	7·21	9,52,809	0·35	9·50
Oudh and Rohilkhand	9,64,641	0·70	18·33	10,59,395	0·77	20·13	3,19,161	0·23	6·06	5,27,798	0·38	10·03
IMPERIAL STATE.												
Punjab Northern	5,10,416	0·51	16·31	11,10,481	1·11	35·47	1,61,806	0·16	5·17	4,51,938	0·45	14·44
Indus Valley and Kandahar.	7,16,765	0·38	14·02	12,94,264	0·67	25·32	1,99,619	0·11	3·90	4,80,653	0·25	9·40
Rajputana-Malwa (f)	12,75,238	0·34	11·67	25,55,653	0·68	23·38	3,94,518	0·11	3·61	8,55,536	0·23	7·83
Sindia	45,263	0·52	13·75	41,966	0·48	12·74	16,663	0·19	5·06	27,401	0·32	8·32
Wardha Coal	54,334	0·70	21·57	44,596	0·57	17·70	22,855	0·29	9·07	22,468	0·29	8·92
PROVINCIAL STATE.												
Calcutta and South-Eastern.	38,819	0·78	18·48	1,22,616	2·46	58·37	2,933	0·06	1·40	18,260	0·37	8·69
Nalhati	16,907	0·42	23·59	11,283	0·28	15·74	3,265	0·08	4·56	7,907	0·19	11·03
Northern Bengal	2,24,404	0·36	10·46	3,08,456	0·50	14·37	50,639	0·08	2·36	1,57,104	0·26	7·32
Kaunia-Dhurla	12,966	0·53	13·27	11,200	0·46	11·47	2,613	0·11	2·67	5,938	0·24	6·08
Tirhoot	74,519	0·31	11·29	1,12,255	0·46	17·01	25,409	0·10	3·85	68,994	0·28	10·45
Patna-Gya	41,524	0·26	7·60	75,337	0·48	13·80	18,958	0·12	3·47	44,332	0·28	8·12
Muttra-Hathras	11,134	0·25	8·31	26,759	0·61	21·17	10,295	0·23	8·15	17,077	0·39	13·51
Muttra-Achnera	10,955	(g)	16·16	27,851	(g)	41·08	3,622	(g)	5·34	7,490	(g)	11·05
Cawnpore-Farukhabad	52,214	0·38	14·55	64,468	0·47	17·97	7,134	0·05	1·99	40,451	0·29	11·27
Dildarnagar-Ghazipur	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)
Nagpur and Chhattisgarh.	1,12,457	0·60	18·61	1,26,487	0·68	20·93	44,226	0·24	7·32	71,973	0·39	11·91
Rangoon and Irrawaddy Valley.	2,51,896	0·52	15·99	2,64,438	0·54	16·78	47,608	0·10	3·02	2,45,896	0·50	15·60
NATIVE STATES.												
Bhopal	3,207	0·77	22·31	—	—	—	—	—	—	8,465	2·04	58·88
Bhavnagar-Gondal	1,27,383	0·44	14·53	1,44,804	0·49	16·51	30,683	0·10	3·50	1,01,733	0·34	11·60
Gaekwar of Baroda's	43,355	0·72	30·10	25,403	0·42	17·64	4,608	0·08	3·20	16,176	0·27	11·23
Nizam's	1,32,238	0·44	15·39	1,30,338	0·44	15·16	42,431	0·14	4·94	84,121	0·28	9·79
Mysore	34,856	0·34	12·09	73,986	0·73	25·65	9,501	0·09	3·29	30,131	0·30	10·45
ASSISTED COMPANIES.												
Darjeeling-Himalayan	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)
Total of all Railways	2,11,25,476	(i) 0·57	13·79	2,46,49,341	(i) 0·67	16·09	78,04,500	(i) 0·21	5·10	1,16,12,132	(i) 0·32	7·58

(a) Includes working expenses of the Pondicherry Railway.
(b) Includes expenditure incurred in working the Dhond-Manmad, Khamgaon, and Amraoti State Railways.
(c) Includes Patri Branch.
(d) Includes expenditure on the Poradaha Section of the Northern Bengal State Railway.
(e) Do. do. in working the Poradaha Section of the Northern Bengal State Railway and the Ranaghat-Bongong Section of the Bengal Central Railway.

RAILWAYS during the YEAR ending 31st December 1882.

General.			Steam Boat.			Special and Miscellaneous.			Total.			Railway.
Amount.	Per Train Mile.	Per cent. of Gross Receipts.	Amount.	Per Train Mile.	Per cent. of Gross Receipts.	Amount.	Per Train Mile.	Per cent. of Gross Receipts.	Amount.	Per Train Mile.	Per cent. of Gross Receipts.	
Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		
17,01,829	0·19	3·61	27,921	—	0·06	4,45,738	0·05	0·95	1,74,05,084	1·92	36·94	East Indian.
												GUARANTEED.
4,57,659	0·23	6·61	—	—	—	55,324	0·03	0·80	43,47,730	2·21	62·84	Madras.
(*a*) 3,06,483	0·21	8·15	—	—	—	13,281	0·01	0·35	23,56,386	1·65	62·69	South Indian.
11,18,588	0·14	3·16	—	—	—	4,71,378	0·05	1·34	1,69,73,345	2·09	48·00	Great Indian Peninsula (*b*).
5,52,720	0·31	5·43	—	—	—	1,22,065	0·07	1·20	51,65,317	2·94	50·76	Bombay, Baroda, and Central India (*c*).
(*e*) 3,08,979	0·38	5·04	3,11,705	0·40	5·09	2,06,963	0·26	3·38	24,87,286	3·13	40·60	Eastern Bengal.
6,68,570	0·25	6·66	1,31,533	0·05	1·31	3,62,373	0·13	3·61	66,21,444	2·46	66·00	Sind, Punjab, and Delhi.
3,86,207	0·28	7·34	—	—	—	2,04,271	0·15	3·88	34,61,473	2·51	65·77	Oudh and Rohilkhand.
												IMPERIAL STATE.
2,36,673	0·24	7·56	10,780	0·01	0·34	1,39,400	0·14	4·45	26,21,494	2·63	83·74	Punjab Northern.
3,43,895	0·18	6·73	1,69,753	0·08	3·14	3,40,498	0·18	6·66	35,36,447	1·85	69·17	Indus Valley and Kandahar.
6,18,536	0·17	5·66	—	—	—	1,00,896	0·03	0·92	58,00,377	1·55	53·07	Rajputana-Malwa (*f*).
18,323	0·21	5·56	—	—	—	87,452	1·01	26·56	2,37,068	2·73	71·99	Sindia.
42,509	0·55	16·87	—	—	—	6,718	0·09	2·67	1,93,480	2·49	76·80	Wardha Coal.
												PROVINCIAL STATE.
18,915	0·38	9·00	—	—	—	3,108	0·06	1·48	2,04,651	4·11	97·42	Calcutta and South-Eastern.
12,674	0·31	17·68	—	—	—	320	0·01	0·45	52,356	1·29	73·05	Nalhati.
1,77,572	0·29	8·28	1,14,475	0·19	5·33	19,707	0·03	0·92	10,52,357	1·71	49·04	Northern Bengal.
6,214	0·26	6·36	53,506	2·21	54·78	11	—	0·01	92,448	3·81	94·6	Kaunia-Dhurla.
57,273	0·23	8·68	64,833	0·27	9·82	2,692	0·01	0·41	4,05,975	1·66	61·51	Tirhoot.
44,251	0·28	8·10	—	—	—	1,06,057	0·67	19·42	3,30,459	2·09	60·51	Patna-Gya.
26,263	0·60	20·78	—	—	—	5,751	0·13	4·55	97,279	2·21	76·97	Muttra-Hathras.
5,526	(*g*)	8·15	—	—	—	3,144	(*g*)	4·64	53,588	(*g*)	86·42	Muttra-Achnera.
76,976	0·56	21·45	—	—	—	459	—	0·13	2,41,702	1·75	67·36	Cawnpore-Farukhabad.
(*g*)	(*g*)	)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	Dildarnagar-Ghazipur.
58,826	0·31	9·73	—	—	—	1,246	0·01	0·20	4,15,215	2·23	68·70	Nagpur and Chhattisgarh.
1,19,861	0·25	7·61	—	—	—	15,561	0·03	0·99	9,45,260	1·94	59·99	Rangoon and Irrawaddy Valley.
												NATIVE STATES.
—	—	—	—	—	—	—	—	—	11,672	2·81	81·19	Bhopal.
1,14,638	0·39	13·07	—	—	—	2,948	0·01	0·34	5,22,189	1·79	59·55	Bhavnagar-Gondal.
1,453	0·12	5·17	—	—	—	280	—	0·20	97,275	1·65	67·54	Gaekwar of Baroda's.
60,389	0·20	7·08	—	—	—	34,302	0·12	3·99	4,84,319	1·62	56·35	Nizam's.
83,781	0·33	11·71	—	—	—	2,640	0·03	0·92	1,84,895	1·82	64·11	Mysore.
												ASSISTED COMPANIES.
(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*h*) 2,77,429	(*g*)	(*h*) 75·70	Darjeeling-Himalayan.
75,82,03	(*i*) 0·21	4·95	8,75,506	(*i*) 0·02	0·57	27,54,583	(*i*) 0·07	1·80	7,66,81,000	(*i*) 2·08	49·95	Total of all Railways.

(*f*) The expenditure shown does not include the cost of working of the Muttra-Achnera Section.
(*g*) Information not available.
(*h*) Including debenture interest.
(*i*) In working out these results the expenses of the Muttra-Achnera Railway have been deducted from the total amounts in consequence of the train mileage run on that line not having been shown.

STATEMENT showing the UNIT MILEAGES of PASSENGERS and GOODS carried

Railway.	PASSENGER TRAFFIC. Number of Passenger Miles (expressed in the Number of Passengers carried one mile). First Class.	Second Class.	Third or Intermediate Class.	Fourth or Lowest Class.	Total.	Other Coaching Traffic. Ton miles.	GOODS TRAFFIC. General Merchandize.
East Indian	6,491,026	24,400,494	24,190,422	723,906,717	778,988,659	9,541,555	691,782,315
GUARANTEED.							
Madras	2,484,196	6,634,165	—	197,494,923	206,613,284	2,209,627	77,387,176
South Indian	538,591	2,356,393	—	146,351,860	149,246,844	—	33,070,857
Great Indian Peninsula (*a*)	5,538,986	29,765,377	53,775,707 (mail)	281,579,317 (3rd ordinary)	370,659,387	5,109,139	488,869,938
Bombay, Baroda, and Central India (*b*).	1,775,362	9,033,575	39,747,229	159,130,084	209,686,200	2,160,764	120,182,643
Eastern Bengal (*c*)	1,131,791	2,214,887	12,264,876	66,616,763	82,228,317	543,072	57,402,921
Sind, Punjab, and Delhi	2,882,755	8,855,982 (upper)	1,168,574	221,704,410 (lower)	234,611,721	2,999,940	117,141,800
Oudh and Rohilkhand	—	1,966,280	—	147,924,280	149,890,560	865,991	74,126,460
Total East Indian and Guaranteed Railways.	20,842,707	85,227,153	131,146,808	1,944,708,304	2,181,924,972	23,430,088	1,659,966,110
IMPERIAL STATE.							
Punjab Northern	803,542	2,782,217	77,279,409	13,196,520	94,061,688	606,237	19,587,498
Indus Valley and Kandahar	515,528	2,324,539	—	73,600,646	76,440,713	806,812	102,404,820
Rajputana-Malwa	1,659,360	4,018,944	4,092,045	292,056,571	301,826,920	1,560,657	112,759,667
Sindia	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)
Wardha Coal	13,385	13,554	62,845	2,767,190	2,856,974	10,328	1,133,330
Total Imperial State Railways	2,991,815	9,139,254	81,434,299	381,620,927	475,186,295	2,984,034	235,885,315
PROVINCIAL STATE.							
Calcutta and South-Eastern	14,244	72,294	5,575,441	1,481,856	7,143,835	13,233	960,683
Nalhati	18,703	97,899	—	2,354,769	2,471,371	11,175	209,614
Northern Bengal	546,255	1,011,617	1,452,394	29,100,803	32,111,069	252,257	18,948,331
Kaunia-Dhurla	11,616	32,144	—	772,205	815,965	4,623	40,155
Tirhoot	149,887	193,213	—	16,158,647	16,501,747	93,033	4,220,852
Patna-Gya	79,515	163,174	—	23,795,611	24,038,300	50,147	2,767,345
Muttra-Hathras	13,737	41,839	—	8,155,552	8,211,128	14,032	451,515
Muttra-Achnera	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)
Cawnpore-Farukhabad	36,821	138,377	—	15,999,173	16,174,371	45,141	2,954,515
Dildarnagar-Ghazipur	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)
Nagpur and Chhattisgarh	43,085	232,286	222,048	10,819,157	11,316,576	40,062	5,601,764
Rangoon and Irrawaddy Valley.	172,391	637,722	—	49,184,443	49,994,556	97,169	14,105,705
Total Provincial State Railways.	1,086,254	2,620,565	7,249,883	157,822,216	168,778,918	620,872	50,260,479
NATIVE STATES.							
Bhopal	2,150	9,053	23,001	373,538	407,742	—	68,197
Bhavnagar-Gondal	87,503	434,619	—	31,241,118	31,763,240	170,723	4,444,146
Gaekwar of Baroda's	—	upper 62,024	—	lower 5,458,912	5,520,936	5,730	704,661
Nizam's	284,217	1,778,480	—	21,552,787	23,615,484	20,286	8,085,854
Mysore	152,387	263,958	—	10,625,655	11,042,000	47,352	753,237
Total Native State Railways	526,257	2,548,134	23,001	69,252,010	72,349,402	431,091	14,056,095
ASSISTED COMPANIES.							
Darjeeling Himalayan (*d*)	—	—	—	—	—	—	—
Total of all Railways	25,447,033	99,535,106	219,853,991	2,553,403,457	2,898,239,587	27,466,085	1,960,167,999

(*a*) Includes Dhond-Manmad and Berar State lines.
(*b*) „ Patri Branch

on the several RAILWAYS during the year ending 31st December 1882.

GOODS TRAFFIC. Number of Ton-Miles expressed in the Number of Tons moved one mile). Military Stores.	Railway Materials for Construction.	Coal for the Public and Construction.	Coal for Revenue only.	Revenue Stores other than Coal.	Live Stock.	Total.	Railway.
58,858,647	12,521,808	192,441,423	45,691,792	55,305,221	327,871	1,003,429,077	East Indian. *a*
							GUARANTEED.
960,979	10,036	109,760	9,402	4,406,561	126,263	83,010,177	Madras.
75,186	1,830,823	—	726,285	3,706,757	27,061	39,436,969	South Indian.
3,390,864	2,314,553	3,768,414	20,306,025	25,185,887	1,193,029	545,028,710	Great Indian Peninsula. (*a*).
536,349	1,278,214	4,588,262	2,058,847	4,810,822	2,009,704	135,414,841	Bombay, Baroda, and Central India (*b*).
34,626	—	2,493,868	1,804,804	1,693,450	1,342	63,433,011	Eastern Bengal. (*c*).
1,321,633	1,033,395	7,734,351	5,231,848	6,527,936	108,954	139,099,917	Sind, Punjab, and Delhi.
276,273	2,015,322	159,042	8,688,544	8,390,039	2,267	93,657,947	Oudh and Rohilkhand.
11,954,557	21,004,151	211,245,120	84,517,547	110,026,673	3,796,491	2,102,510,649	Total East Indian and Guaranteed Railways.
							IMPERIAL STATE.
413,561	4,776,297	—	2,493,699	1,125,098	49,889	28,446,042	Punjab Northern.
266,247	13,284,149	5,900	2,557,792	3,614,868	186,033	122,319,809	Indus Valley and Kandahar.
611,372	4,789,645	320,366	8,969,629	3,344,675	12,362	130,807,716	Rajputana-Malwa.
(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	Sindia.
103	63,023	2,836,158	3,875	412,818	—	4,449,307	Wardha Coal.
1,291,283	22,913,114	3,162,424	14,024,995	8,497,459	248,284	286,022,874	Total Imperial State Railways.
							PROVINCIAL STATE.
—	98,093	38,398	265	10,167	626	1,108,232	Calcutta and South-Eastern.
20	—	67,504	292	9,202	—	286,632	Nalhati.
36,956	250,159	553,151	884,646	431,671	—	21,104,914	Northern Bengal.
276	1,586	—	725	247	—	42,989	Kaunia-Dhurla.
901	1,435,431	1,044,289	89,776	48,686	—	6,839,935	Tirhoot.
42	679,017	214,487	343	46,316	—	3,707,550	Patna-Gya.
2,635	461	13,582	4,487	1,055	—	473,735	Muttra-Hathras.
(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	Muttra-Achnera.
85,739	29,674	83,662	9,242	282,032	—	3,444,864	Cawnpore-Farukhabad.
(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	Dildarnagar-Ghazipur.
5,523	569,305	22,402	163,043	172,352	63	6,534,452	Nagpur and Chhattisgarh.
48	211,478	14,900	122,302	220,026	249,029	14,923,488	Rangoon and Irrawaddy Valley.
132,140	3,275,204	2,052,375	1,275,121	1,221,754	249,718	58,466,791	Total Provincial State Railways.
							NATIVE STATES.
—	—	—	—	—	8	68,205	Bhopal.
—	2,611,214	99,847	64,424	125,112	1,228	7,345,971	Bhavnagar-Gondal.
—	308	935	6,826	68,091	164	780,985	Gaekwar of Baroda's.
203,631	72,352	20,938	363	172,993	28,994	8,585,125	Nizam's.
573	417,672	—	2,302	88,932	6,307	1,269,023	Mysore.
204,204	3,101,546	121,720	73,915	455,128	36,701	18,049,309	Total Native State Railways.
							ASSISTED COMPANIES.
—	—	—	—	—	—	—	Darjeeling-Himalayan. (*d*).
13,582,184	50,294,015	216,581,639	99,891,578	120,201,014	4,331,194	2,465,049,623	Total of all Railways.

(*c*) Includes the Poradaha Section, Northern Bengal State Railway, and the Ranaghat Section, Bengal Central Railway.
(*d*) Information not available.

STATEMENT showing the Number of Engines and Vehicles used in conveying Traffic and

Railway.	Number of Engines and Vehicles used in conveying						
	Engines.	Carriages.					
		First Class.	Second Class.	Third or Intermediate Classes.	Fourth or Lowest Class.	Composite.	Total Number.
East Indian (*a*)	563	106	99	53	644	17	919
GUARANTEED.							
Madras	157	38	61	(*c*)	253	28	380
South Indian	120	36	33	—	333	19	421
Great Indian Peninsula (*d*)	440	83	150	224	229	73	759
Bombay, Baroda, and Central India (*e*)	103	22	35	247	—	18	322
Eastern Bengal (*f*)	48	23	8	52	65	14	162
Sind, Punjab, and Delhi	159	44 Upper	30 Officers	14	296 Lower	30	414
Oudh and Rohilkhand	125	38	4	—	206	2	250
Total East Indian and Guaranteed Railways	1,715	390	420	590	2,026	201	3,627
IMPERIAL STATE.							
Punjab Northern	99	37	19	10	161	13	240
Indus Valley and Kandahar	140	24	27	—	205	5	261
Rajputana-Malwa	301	88	72	42	437	29	668
Wardha Coal	6	—	—	3	4	2	9
Total Imperial State Railways	546	149	118	55	807	49	1,178
PROVINCIAL STATE.							
Calcutta and South-Eastern	14	1	—	20	25	5	51
Nalhati	4	2	1	6	—	—	9
Northern Bengal	36	24	6	10	54	9	103
Kaunia Dhurla	4	—	—	—	6	4	10
Tirhoot	14	8	3	28	—	4	43
Patna-Gya	7	5	4	40	—	—	49
Muttra-Hathras	5	1	—	—	24	3	28
Muttra Achnera (*h*)	—	—	—	—	—	—	—
Cawnpore-Farukhabad	11	6	4	—	72	4	86
Nagpur and Chhattisgarh	16	3	4	(*l*) 4	(*m*) 24	5	40
Rangoon and Irrawaddy Valley	31	7	14	—	113	12	146
Total Provincial State Railways	142	57	36	108	318	46	565
NATIVE STATES.							
Bhopal (*o*)	—	—	—	—	—	—	—
Bhavnagar-Gondal	20	13	8	—	56	4	81
Gaekwar of Baroda's	6	(*p*) 2.	3 Upper	—	18 Lower	—	23
Nizam's	10	7	5	—	26	7	45
Mysore	14	15	(*r*) 4	—	47	—	66
Total Native State Railways	50	37	20	—	147	11	215
ASSISTED COMPANIES.							
Darjeeling-Himalayan	(*k*)	(*k*)	(*k*)	(*k*)	(*k*)	(*k*)	(*k*)
Total for all Railways	2,453	633	594	753	3,298	307	5,585

(*a*) Includes Sindia, Dildarnagar-Ghazipur and the Barh Branch of the Tirhoot State Railway, except items marked (*b*).
(*b*) Excludes branch lines worked by the East Indian Railway, the train mileage of these lines being included only in the total.
(*c*) Included with 4th or lowest class.
(*d*) Includes Dhond-Manmad and Berar State lines.
(*e*) Includes Patri Branch line.
(*f*) Includes Poradaha Section, Northern Bengal State Railway, and Ranaghat Section, Bengal Central Railway.
(*g*) Including proportion of light engine mileage.
(*h*) Worked by Stock of the Rajputana-Malwa Railway.
(*i*) Combined brake vans.

the NUMBER of MILES travelled by TRAINS during the Year ending 31st December 1882.

Traffic.			No. of Train Miles run.					
Miscellaneous Coaching Vehicle (excluding Brakes).	Goods Vehicles of all descriptions (excluding Brakes).	Brake Vans.	Passenger.	Goods.	Mixed. (*s*).	Total.	No. of Train Miles per open Mile.	Railway.
158	8,551	310	(*b*)3,003,576	(*b*)6,047,787	(*b*)1,703,721	9,161,717	5,740	East Indian. (*a*).
								GUARANTEED.
79	2,821	138	889,159	1,074,121	825,468	1,963,280	2,284	Madras.
25	1,584	90	553,034	872,748	874,946	1,425,782	2,177	South Indian.
179	7,815	458	2,546,738	5,563,481	911,831	8,110,219	5,616	Great Indian Peninsula. (*d*).
34	2,888	63	840,123	918,190	357,981	1,758,313	3,835	Bombay, Baroda, and Central India. (*e*).
13	953	51	316,346	477,950	205,317	794,296	4,439	Eastern Bengal. (*f*).
92	3,388	109	1,149,933	1,535,090	685,879	2,685,023	3,972	Sind, Punjab, and Delhi.
27	3,086	70	499,356	879,839	807,127	1,379,195	2,522	Oudh and Rohilkhand.
607	31,086	1,289	9,798,265	17,369,206	6,372,270	27,277,825	4,252	Total East Indian and Guaranteed Railways.
								IMPERIAL STATE.
21	1,475	128	528,947	468,296	(*g*) 621,704	997,243	2,511	Punjab Northern.
53	2,680	125	443,480	1,465,393	991,459	1,908,873	2,925	Indus Valley and Kandahar.
137	4,933	223	1,597,391	2,146,863	1,234,874	3,744,254	3,357	Rajputana-Malwa.
—	213	6	28,415	49,272	65,700	77,687	1,726	Wardha Coal.
211	9,301	482	2,598,233	4,129,824	2,913,737	6,728,057	3,044	Total Imperial State Railways.
								PROVINCIAL STATE.
4	257	8	29,814	19,934	33,941	49,748	1,595	Calcutta and South-Eastern.
1	24	—	25,125	15,537	39,840	40,962	1,492	Nalhati.
19	780	30	225,513	389,577	196,368	615,090	2,658	Northern Bengal.
—	40	4	13,142	11,094	22,360	24,236	751	Kaunia Dhurla.
12	350	20	94,110	150,331	153,640	244,441	3,012	Tirhoot.
2	81	7	81,931	76,448	104,025	158,379	2,769	Patna-Gya.
—	75	4	28,165	15,922	43,488	44,087	1,520	Muttra-Hathras.
—	—	—	(*k*)	(*k*)	(*k*)	(*k*)	(*k*)	Muttra-Achnera. (*h*).
2	221	(*i*) 10	78,135	60,032	129,765	138,167	1,597	Cawnpore-Farukhabad.
(*n*) 8	457	18	56,675	129,336	93,750	186,011	1,826	Nagpur and Chhattisgarh.
23	906	30	232,484	255,254	222,459	487,738	3,029	Rangoon and Irrawaddy Valley.
71	3,191	131	865,094	1,123,465	1,039,636	1,988,559	2,371	Total Provincial State Railways.
								NATIVE STATES.
—	—	—	2,559	1,588	—	4,147	377	Bhopal. (*o*).
8	540	22	136,950	156,476	101,838	292,426	1,515	Bhavnagar-Gondal.
(*q*) 4	187	6	32,921	27,337	44,120	60,258	1,024	Gaekwar of Baroda's.
10	106	16	144,702	154,404	111,701	299,106	2,554	Nizam's.
6	150	7	52,661	48,818	41,992	101,479	1,184	Mysore.
28	983	51	369,793	387,623	299,651	757,416	1,626	Total Native State Railways.
								ASSISTED COMPANIES.
(*k*)	(*k*)	(*k*)	(*k*)	(*k*)	(*k*)	(*k*)	(*k*)	Darjeeling-Himalayan.
917	44,561	1,953	13,631,385	23,010,118	10,625,294	36,751,857	3,701	Total for all Railways.

(*k*) Information not available.
(*l*) Includes two composite 3rd Class and Post Office carriages.
(*m*) Includes two composite 4th Class and brakes.
(*n*) Includes one reserved carriage.
(*o*) Worked by stock of the Great Indian Peninsula Railway.
(*p*) Saloon carriages.
(*q*) Open waggons for carrying passengers.
(*r*) Half 2nd Class, and half for Postal Service.
(*s*) Included in two previous columns.

STATEMENT showing the QUANTITIES of the principal Articles of MERCHANDISE, &c., carried, and the GUARANTEED

Classification Number.	Articles.	Madras.				South Indian.				(a) Great Indian Peninsula.			
		Quantity.		Receipts.		Quantity.		Receipts.		Quantity.		Receipts.	
		1881. Tons.	1882. Tons.	1881. Rs.	1882. Rs.	1881. Tons.	1882. Tons.	1881. Rs.	1882. Rs.	1881. Tons.	1882. Tons.	1881. Rs.	1882. Rs.
I.	Animals - No.	21,155	20,815	18,519	19,760	2,922	3,136	2,668	3,048	—	—	—	—
II.	Borax - - -	10	3	76	42	—	—	—	—	—	—	—	—
III.	Canes and rattans -	47	56	925	592	—	—	—	—	—	—	—	—
IV.	Caoutchouc - -	26	17	239	132	—	—	—	—	—	—	—	—
V.	Chinese and Japanese ware.	1	19	31	156	—	—	—	—	—	—	—	—
VI.	Coal and coke -	1,870	2,496	8,699	13,756	—	—	—	—	33,197	41,176	61,892	1,04,997
VII.	Cotton, raw - -	15,080	21,100	2,22,847	2,97,800	5,071	9,776	27,388	59,463	112,928	163,077	34,15,371	47,60,247
VIII.	Cotton, manufactured.	12,130	13,038	1,81,078	1,93,238	8,885	9,548	82,315	1,09,290	35,774	37,370	13,19,336	13,53,213
IX.	Drugs and medicines	943	856	14,284	12,938	—	—	—	—	198	211	7,204	9,626
X.	Dyeing materials -	6,865	8,373	55,726	58,340	1,597	3,593	9,503	18,731	—	7,878	—	1,27,683
XI.	Earthenware and porcelain.	627	540	4,588	5,195	91	65	566	321	—	—	—	—
XII.	Fibrous products -	4,912	5,519	42,640	50,222	—	—	—	—	16,242	19,794	3,10,383	3,69,976
XIII.	Fruits and nuts -	16,218	18,213	1,48,216	1,62,635	17,307	17,420	81,660	88,601	68,469	36,317	11,97,969	7,98,222
XIV.	Grain and pulse -	103,433	124,169	5,25,276	6,44,324	95,885	103,066	3,56,171	3,68,431	681,340	605,952	91,50,367	81,63,101
XV.	Gums and resins -	272	369	3,170	4,022	—	—	—	—	—	8,524	—	1,87,898
XVI.	Hides and skins -	10,789	15,841	1,42,659	2,10,860	4,041	4,275	25,154	27,768	10,699	12,129	3,06,225	3,61,543
XVII.	Horns - -	159	245	1,853	2,817	—	—	—	—				
XVIII.	Lac - - -	96	183	765	1,272	—	—	—	—	—	—	—	—
XIX.	Leather - -	3,504	4,061	48,624	58,836	—	—	—	—	—	—	—	—
XX.	Liquors - -	4,328	4,040	50,815	46,882	1,910	2,196	11,312	11,333	3,160	2,990	85,272	84,443
XXI.	Mats - - -	1,065	1,227	5,526	6,346	418	601	2,967	3,995	—	—	—	—
XXII.	Metals - -	18,620	17,438	2,08,171	2,27,140	9,251	7,177	54,122	46,116	48,511	66,094	8,84,432	12,85,406
XXIII.	Oils - - -	7,681	8,320	60,436	56,173	8,299	7,882	41,155	38,223	12,489	13,320	2,58,976	2,67,334
XXIV.	Opium - -	13	8	3,452	1,686	—	—	—	—	3,230	2,869	2,14,781	1,88,032
XXV.	Paints and colours -	136	183	2,019	2,519	—	—	—	—	8,647	—	1,55,893	—
XXVI.	Provisions - -	18,666	17,050	1,19,336	1,16,488	9,387	17,581	46,026	77,862	4,403	6,815	1,51,344	1,67,428
XXVII.	Salt - - - -	48,143	51,506	3,50,055	3,73,071	18,512	25,426	74,396	98,870	96,684	109,001	12,03,830	14,04,775
XXVIII.	Saltpetre - -	569	585	4,212	4,041	—	—	—	—	—	—	—	—
XXIX.	Seeds - - -	23,310	21,358	1,20,752	1,09,444	24,985	29,117	97,582	1,06,795	191,695	278,011	27,86,557	41,02,196
XXX.	Silk - - -	50	88	1,533	2,442	—	—	—	—	488	463	26,830	25,484
XXXI.	Spices - -	3,328	4,025	26,091	31,074	139	851	731	4,417	3,353	5,761	63,211	84,102
XXXII.	Stone and marble -	3,152	4,461	16,014	21,037	163,583	94,788	1,17,128	59,940	3,479	2,060	10,107	10,498
XXXIII.	Sugar - - -	21,312	28,951	1,38,075	1,77,552	18,686	28,741	81,881	1,02,971	42,171	45,132	6,14,356	6,65,234
XXXIV.	Tea - - -	247	290	4,837	5,978	43	8	208	105	438	228	16,947	8,029
XXXV.	Tobacco - -	8,059	8,903	49,045	53,994	3,752	3,039	16,581	15,228	5,892	6,377	92,499	98,342
XXXVI.	Wood - - -	40,865	49,004	1,69,292	1,86,906	14,664	13,254	42,324	30,685	50,340	71,895	1,61,115	2,23,805
XXXVII.	Wool - - -	565	707	7,073	8,684	—	—	—	—	185	138	5,104	3,758
XXXVIII.	All other articles of merchandise.	13,659	13,404	1,82,077	2,02,878	43,887	37,294	2,08,867	1,78,810	87,710	62,708	16,58,808	10,59,728
XXXIX.	Bark (tanning) -	8,166	9,353	94,253	1,10,347	—	—	—	—	—	—	—	—
XL.	Coffee - -	5,874	5,575	44,018	50,045	—	—	—	—	—	—	—	—
XLI.	Government stores	2,383	3,271	66,972	95,434	—	—	—	—	—	13,037	—	3,01,692
XLII.	Manures - -	4,796	4,437	19,013	21,024	—	—	—	—	—	—	—	—
XLIII.	Vegetables - -	12,025	13,288	90,508	1,01,191	—	—	—	—	—	21,098	—	2,10,747
XLIV.	Chunam and lime -	1,656	1,685	5,022	4,179	—	—	—	—	—	737	—	7,332
XLV.	Hay and straw, and grass, &c.	75,635	190	1,08,744	456	—	—	—	—	—	6,015	—	25,803

(a) Includes the Dhond and Manmad and the Berar State Railway.

RECEIPTS therefrom, on the several RAILWAYS for 1882, as compared with the similar results for 1881.

RAILWAYS.	(b) Bombay, Baroda, and Central India.				(c) Eastern Bengal.				Sind, Punjab, and Delhi.				Oudh and Rohilkund.				Classification Number.
	Quantity.		Receipts.		Quantity.		Receipts.		Quantity.		Receipts.		Quantity.		Receipts.		
	1881. Tons.	1882. Tons.	1881. Rs.	1882. Rs.	1881. Tons.	1882. Tons.	1881. Rs.	1882. Rs.	1881. Tons.	1882. Tons.	1881. Rs.	1882. Rs.	1881. Tons.	1882. Tons.	1881. Rs.	1882. Rs.	
	9,073	10,377	1,45,999	1,90,056	30	133	82	224	2,623	2,555	8,921	14,034	119	79	353	449	I.
	—	—	—	—	3	4	27	42	372	485	4,363	4,838	1,423	1,590	20,300	22,503	II.
	—	—	—	—	193	279	532	736	811	815	5,334	4,836	9	12	65	149	III.
	—	—	—	—	88	198	1,623	4,281	10	12	82	98	—	—	—	—	IV.
	—	—	—	—	—	—	—	—	49	52	1,130	1,135	10	11	119	130	V.
	7,896	16,179	63,086	1,13,313	68,119	54,020	1,17,655	1,03,061	42,628	30,600	2,48,711	1,81,698	1,498	3,423	2,743	6,557	VI.
	60,605	74,461	9,35,385	11,46,997	1,747	1,869	15,373	25,249	7,359	13,324	97,473	1,26,009	7,293	10,758	77,476	1,02,809	VII.
	14,087	20,528	3,36,660	4,45,359	18,155	15,762	2,09,064	1,69,060	21,037	21,155	1,18,498	3,31,735	6,903	7,863	62,288	77,506	VIII.
	17,316	18,555	1,17,682	1,38,411	250	360	3,544	4,704	5,053	5,087	69,736	66,284	1,028	1,432	7,723	10,625	IX.
	—	—	—	—	2,166	3,078	15,298	18,482	5,937	5,551	87,411	79,172	3,835	2,815	32,555	23,102	X.
	—	—	—	—	—	—	—	—	277	345	6,507	6,513	65	93	800	1,088	XI.
	4,688	4,895	50,563	52,547	217,204	263,093	24,24,477	28,87,015	6,762	9,687	47,283	66,616	8,089	8,896	40,303	44,310	XII.
	20,059	24,037	2,15,441	2,39,523	444	431	4,497	4,492	15,179	14,364	1,90,125	1,68,991	2,634	2,919	25,859	28,932	XIII.
	119,881	106,806	9,29,435	8,25,281	61,881	47,929	2,34,569	1,74,274	223,629	336,855	13,15,437	17,48,358	267,176	251,169	7,97,487	8,55 981	XIV.
	—	—	—	—	193	130	2,231	1,403	508	498	6,154	5,578	186	252	1,384	2,096	XV.
	1,963	2,172	35,132	36,881	4,684	5,633	56,406	68,428	5,780	4,885	52,931	46,628	3,670	4,171	20,380	24,041	XVI.
	—	—	—	—	62	80	598	746	244	229	2,091	2,473	288	328	1,468	1,741	XVII.
	—	—	—	—	259	259	2,453	2,240	527	341	8,286	4,665	456	405	1,690	1,548	XVIII.
	—	—	—	—	372	303	4,952	4,548	1,122	1,183	20,747	20,597	462	294	4,130	3,092	XIX.
	840	983	26,810	24,722	696	565	9,946	7,443	8,206	7,813	1,07,900	92,526	2,414	2,427	26,561	31,283	XX.
	—	—	—	—	—	—	—	—	136	188	1,343	1,528	172	161	884	643	XXI.
	11,459	15,750	1,93,371	2,69,599	9,317	6,879	69,885	43,195	21,747	22,294	2,08,664	2,18,729	8,571	8,355	64,082	66,626	XXII.
	3,275	3,022	36,225	34,500	2,174	2,234	20,711	21,653	3,227	3,293	42,795	44,960	767	1,103	6,698	10,172	XXIII.
	659	383	44,955	20,299	18	21	275	295	38	21	702	687	812	873	20,443	20,657	XXIV.
	—	—	—	—	173	220	1,757	2,277	363	450	6,540	7,694	113	85	1,081	686	XXV.
	2,605	2,976	35,512	45,885	3,192	3,373	22,275	26,714	4,678	3,737	70,393	45,864	2,168	2,775	17,448	19,643	XXVI.
	69,614	79,600	2,37,099	3,62,350	35,441	39,624	1,47,833	1,31,992	37,387	46,299	1,69,072	1,92,306	51,437	55,881	1,66,210	1,75,182	XXVII.
	—	—	—	—	93	33	558	254	911	1,129	7,927	10,844	373	460	1,444	1,567	XXVIII.
	65,479	70,318	6,17,366	6,25,548	16,643	11,667	78,069	53,003	26,539	58,109	1,45,713	3,29,033	49,553	71,786	1,42,145	2,04,205	XXIX.
	—	—	—	—	309	297	3,945	3,690	370	448	6,749	8,982	35	21	639	392	XXX.
	—	—	—	—	393	587	4,627	5,847	4,169	4,246	48,337	46,607	976	1,596	8,415	10,147	XXXI.
	13,790	19,576	44,964	58,907	963	241	2,610	1,769	4,566	15,568	33,170	43,999	14,556	27,569	27,482	30,431	XXXII.
	33,458	28,404	4,63,272	3,18,377	9,312	10,285	34,605	37,383	70,504	79,388	6,25,031	5,88,992	92,837	87,113	4,85,737	4,10,049	XXXIII.
	430	413	11,591	10,136	8,129	7,961	1,16,347	1,02,843	2,420	1,934	37,308	30,909	305	302	2,557	4,077	XXXIV.
	12,284	13,764	1,16,486	1,22,358	8,612	11,654	59,040	74,677	1,663	1,751	22,660	24,435	1,301	1,189	8,647	8,817	XXXV.
	35,241	48,535	1,86,511	2,78,484	2,910	2,635	12,506	8,493	34,439	37,585	1,11,496	1,05,888	18,534	19,696	60,092	56,154	XXXVI.
	3,346	3,542	82,700	84,871	41	27	632	392	10,006	9,602	1,30,175	1,16,168	243	156	2,750	1,607	XXXVII.
	55,505.	57,725	8,27,162	8,58,192	36,524	93,320	1,58,583	2,68,562	78,814	43,659	8,09,124	4,36,000	14,320	13,642	97,166	90,578	XXXVIII.
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	XXXIX.
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	XL.
	1,336	2,318	27,193	50,366	—	—	—	—	11,833	9,553	2,08,820	1,86,502	3,775	3,311	21,397	20,407	XLI.
	—	—	—	—	—	—	—	—	91	199	447	665	—	—	—	—	XLII.
	—	—	—	—	—	1,326	—	5,642	3,923	4,568	26,309	28,743	2,233	1,677	7,874	6,702	XLIII.
	3,459	3,545	10,166	14,786	—	862	—	2,036	19,242	28,934	34,497	52,520	—	—	—	—	XLIV.
	13,372	18,757	37,738	60,717	—	—	—	—	749	710	2,327	3,002	—	—	—	—	XLV.

(b) Includes Patri Branch.
(c) Includes Poradaha section of the Northern Bengal State Railway and Ranaghat section of the Bengal Central Railway.

STATEMENT showing the QUANTITIES of the principal Articles of MERCHANDISE, &c., carried, and the RECEIPTS

IMPERIAL STATE

Classification Number.	Articles.	East Indian.				Punjab Northern.				Indus Valley and Kandahar.			
		Quantity.		Receipts.		Quantity.		Receipts.		Quantity.		Receipts.	
		1881. Tons.	1882. Tons.	1881. Rs.	1882. Rs.	1881. Tons.	1882. Tons.	1881. Rs.	1882. Rs.	1881. Tons.	1882. Tons.	1881. Rs.	1882. Rs.
I.	Animals - No.	7,387	7,678	24,703	41,162	3,166	1,213	9,766	4,301	8,154	9,588	6,946	8,560
II.	Borax - -	1,653	1,855	41,181	44,201	14	8	194	122	—	—	—	—
III.	Canes and rattans -	830	753	7,690	7,378	66	2	821	36	—	—	—	—
IV.	Caoutchouc - -	631	956	5,809	10,704	—	—	—	—	—	—	—	—
V.	Chinese and Japanese ware.	27	49	1,560	1,987	57	120	1,843	2,737	—	—	—	—
VI.	Coal and coke -	794,844	910,992	49,90,669	53,54,754	—	—	—	—	—	19	—	170
VII.	Cotton, raw - -	54,815	53,804	17,53,066	16,06,546	687	211	14,376	4,456	607	3,598	10,688	77,435
VIII.	Cotton, manufactured.	69,868	72,608	24,02,888	23,62,073	4,686	4,805	87,858	96,478	7,885	9,084	1,82,312	1,79,444
IX.	Drugs and medicines	3,256	3,375	86,355	95,760	548	237	7,217	4,515	1,396	1,353	28,108	27,461
X.	Dyeing materials -	17,591	19,863	4,56,930	4,94,323	1,049	1,163	16,094	17,138	2,095	2,691	46,669	48,901
XI.	Earthenware and porcelain.	422	309	13,686	14,601	52	19	1,426	448	—	—	—	—
XII.	Fibrous products -	30,458	34,877	5,11,868	6,12,511	1,451	1,786	12,468	14,437	2,398	2,587	23,227	24,047
XIII.	Fruits and nuts -	9,918	14,171	3,36,130	3,75,240	3,756	3,911	33,532	63,469	2,916	6,870	1,04,128	1,00,703
XIV.	Grain and pulse -	759,712	635,815	71,18,499	57,38,978	69,903	52,592	6,27,949	3,34,022	1,19,127	1,74,631	9,68,170	14,49,632
XV.	Gums and resins -	2,101	2,148	44,935	40,969	17	59	272	632	—	—	—	—
XVI.	Hides and skins -	25,290	26,840	4,99,525	4,53,659	1,306	1,612	17,107	13,223	1,236	1,027	15,808	14,583
XVII.	Horns - - -	494	617	9,263	10,649	188	28	794	207	—	—	—	—
XVIII.	Lac - - -	13,417	14,772	2,25,671	2,77,729	23	44	367	649	—	—	—	—
XIX.	Leather - -	2,462	2,476	91,504	92,133	407	431	5,151	6,735	—	—	—	—
XX.	Liquors - - -	5,935	6,001	2,32,940	1,94,471	2,291	2,800	30,767	30,948	2,159	1,380	79,332	52,031
XXI.	Mats - - -	166	204	2,827	3,239	47	106	475	1,131	—	—	—	—
XXII.	Metals - - -	66,597	85,102	18,17,233	18,88,686	3,697	6,178	38,243	41,363	3,003	9,805	78,649	1,49,616
XXIII.	Oils - - -	4,237	6,215	1,12,376	1,32,691	1,363	1,455	19,117	22,850	739	1,302	13,446	26,115
XXIV.	Opium - - -	9,599	7,635	2,36,384	1,95,571	1	—	8	—	—	—	—	—
XXV.	Paints and colours -	1,728	2,121	38,262	37,978	83	44	1,415	754	196	116	5,570	2,406
XXVI.	Provisions - -	13,494	13,572	4,55,835	4,15,758	843	519	13,970	7,928	2,355	1,489	51,745	33,997
XXVII.	Salt - - - -	216,582	223,357	16,66,591	17,42,018	32,937	48,399	1,67,151	2,62,956	2,944	3,383	17,835	20,572
XXVIII.	Saltpetre - -	35,331	37,035	4,04,743	4,34,838	125	221	986	1,486	—	—	—	—
XXIX.	Seeds - -	306,686	394,325	30,54,721	41,64,412	2,917	1,763	16,210	10,418	5,341	33,965	27,923	3,15,964
XXX.	Silk - - -	1,279	1,258	49,142	40,726	109	123	2,101	2,956	34	32	1,055	1,108
XXXI.	Spices - - -	6,457	7,371	1,38,559	1,38,294	547	519	6,711	5,648	1,373	999	25,767	18,515
XXXII.	Stone and marble -	28,422	30,303	1,37,008	1,61,601	1,426	3,047	5,007	6,811	—	—	—	—
XXXIII.	Sugar - -	132,618	151,274	12,31,224	14,29,378	13,347	13,193	1,24,508	98,729	15,662	19,020	1,68,177	1,64,319
XXXIV.	Tea - - -	1,256	1,338	47,667	52,964	1,210	779	20,829	17,327	—	—	—	—
XXXV.	Tobacco - - -	21,531	20,382	3,05,820	2,84,124	264	166	2,124	2,718	780	760	11,160	10,525
XXXVI.	Wood - -	29,610	31,435	1,84,333	1,73,649	18,184	31,842	81,184	1,09,549	1,767	1,580	20,327	9,820
XXXVII.	Wool - -	1,834	1,796	71,335	55,207	496	835	5,394	9,508	7,143	6,869	1,79,695	1,72,681
XXXVIII.	All other articles of merchandise.	71,385	80,007	12,45,121	11,98,849	24,301	15,327	2,27,290	1,06,436	29,887	30,322	2,43,409	1,48,[illegible]
XXXIX.	Bark (tanning) -	—	—	—	—	—	—	—	—	—	—	—	—
XL.	Coffee - - -	—	—	—	—	—	—	—	—	—	—	—	—
XLI.	Government stores -	12,967	13,136	4,96,483	5,00,125	2,457	2,406	37,270	55,926	23,968	835	2,19,710	23,826
XLII.	Manures - -	6,751	6,418	39,792	36,969	—	—	—	—	—	—	—	—
XLIII.	Vegetables - -	9,262	9,893	77,170	95,710	—	—	—	—	—	—	—	—
XLIV.	Chunam and lime -	18,414	26,834	1,32,891	1,70,[illegible]1	—	—	—	—	1745	3,235	13,308	17,063
XLV.	Hay and straw and grass, &c.	—	—	—	—	—	—	—	—	—	—	—	—
XLVI.	Railway materials -	—	—	—	—	—	40,648	—	1,86,765	—	—	—	—
XLVII.	Revenue stores -	—	—	—	—	—	25,645	—	99,204	—	—	—	—

therefrom, on the several RAILWAYS for 1882, as compared with the similar results for 1881—*cont.*

RAILWAYS.								PROVINCIAL STATE RAILWAYS.								
(*d*) Rajputana-Malwa.				Wardha Coal.				Calcutta and South-Eastern.				Nalhatà				Classification Number.
Quantity.		Receipts.		Quantity.		Receipts.		Quantity.		Receipts.		Quantity.		Receipts.		
1881. Tons.	1882. Tons.	1881. Rs.	1882. Rs.	1881. Tons.	1882. Tons.	1881. Rs.	1882. Rs.	1881. Tons.	1882. Tons.	1881. Rs.	1882. Rs.	1881. Tons.	1882. Tons.	1881. Rs.	1882. Rs.	
842	302	2,467	2,389	—	—	—	—	23	24	111	108	—	—	—	—	I.
40	83	835	2,966	—	—	—	—	—	—	—	—	—	—	—	—	II.
456	969	3,728	11,161	50	20	98	53	—	—	—	—	—	—	—	—	III.
—	2	—	15	—	—	—	—	—	—	—	—	—	—	—	—	IV.
22	55	1,006	1,384	—	—	—	—	—	—	—	—	—	—	—	—	V.
2,223	2,136	17,019	12,415	49,923	61,382	73,762	90,130	—	—	—	—	1,749	2,488	2,889	4,032	VI.
21,791	26,826	4,64,398	5,69,725	1,788	1,561	5,533	4,985	—	—	—	—	234	256	862	945	VII.
13,389	19,730	2,71,519	5,47,710	276	567	1,487	2,623	—	—	—	—	913	860	2,581	3,138	VIII.
1,571	701	18,849	15,762	76	72	272	250	—	—	—	—	19	18	80	102	IX.
3,657	5,076	52,706	91,646	40	63	103	211	—	—	—	—	13	18	40	71	X.
68	119	1,069	2,020	2	1	9	3	—	—	—	—	—	—	—	—	XI.
5,708	5,844	50,084	54,933	233	380	676	1,143	—	—	—	—	130	98	243	304	XII.
11,863	12,144	1,77,355	1,74,981	294	349	1,080	1,331	—	—	—	—	107	71	280	238	XIII.
156,698	112,839	10,40,431	8,37,386	11,420	8,908	10,975	9,253	7,252	11,327	6,956	10,746	2,443	2,693	3,050	2,808	XIV.
455	793	7,047	12,378	31	35	97	116	—	—	—	—	—	—	—	—	XV.
1,887	4,095	34,545	85,776	53	111	218	460	—	—	—	—	71	76	174	255	XVI.
100	103	1,667	1,730	6	18	24	74	—	—	—	—	—	—	—	—	XVII.
129	233	1,620	3,499	2	2	10	7	—	—	—	—	6	5	10	20	XVIII.
412	509	5,236	7,631	1	14	3	58	—	—	—	—	—	—	—	—	XIX.
1,028	705	26,045	21,837	12	17	55	74	—	—	—	—	38	38	156	228	XX.
29	21	268	353	1	27	4	78	—	—	—	—	—	—	—	—	XXI.
11,637	15,644	1,73,804	3,20,465	351	463	917	1,368	—	—	—	—	188	224	554	792	XXII.
1,332	1,554	20,247	28,106	79	7	313	344	—	—	—	—	43	55	119	205	XXIII.
4,188	4,081	72,131	73,007	—	1	—	8	—	—	—	—	4	—	18	—	XXIV.
276	244	4,564	6,763	5	19	16	65	—	—	—	—	5	19	12	66	XXV.
3,579	6,990	45,810	1,34,882	80	60	267	277	—	—	—	—	17	9	47	31	XXVI.
163,503	1,61,646	14,01,344	18,59,676	4,347	4,511	10,347	10,625	—	—	—	—	280	974	333	1,066	XXVII.
714	510	6,590	7,369	—	—	—	—	—	—	—	—	—	—	—	—	XXVIII.
50,742	67,645	2,90,316	4,56,268	7,886	12,539	9,694	15,025	—	—	—	—	1,344	1,117	2,157	1,772	XXIX.
44	161	1,152	8,500	4	10	27	76	—	—	—	—	364	352	1,468	2,166	XXX.
1,881	1,176	31,677	25,467	5	68	17	279	—	—	—	—	126	141	290	431	XXXI.
4,378	5,780	25,735	33,997	393	7	547	26	—	—	—	—	93	73	207	163	XXXII.
68,073	88,344	7,48,344	10,39,177	169	147	421	458	—	—	—	—	352	275	606	500	XXXIII.
489	462	19,367	17,209	—	—	—	—	—	—	—	—	—	—	—	—	XXXIV.
6,609	7,533	92,607	1,20,610	4	10	17	45	—	—	—	—	77	127	152	299	XXXV.
20,634	14,061	98,100	93,475	826	1,555	2,022	3,357	19,246	22,460	16,015	18,955	55	83	99	159	XXXVI.
2,851	3,397	70,296	99,616	1	12	4	52	—	—	—	—	—	—	—	—	XXXVII.
14,218	30,426	1,96,744	2,54,413	3,005	2,445	6,984	5,190	9,475	14,291	5,399	6,390	1,400	1,179	2,487	3,031	XXXVIII.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	XXXIX.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	XL.
—	—	—	—	4	2	13	8	—	—	—	—	—	1	—	4	XLI.
—	—	—	—	—	—	—	—	—	—	—	—	—	5	—	8	XLII.
—	—	—	—	—	—	—	—	—	—	—	—	255	374	480	739	XLIII.
—	—	—	—	—	—	—	—	—	—	—	—	—	27	—	25	XLIV.
—	—	—	—	—	—	—	—	4,24	4,632	8,605	8,960	—	—	—	—	XLV.
119,084	167,134	3,47,693	1,89,126	1,508	6,190	2,017	12,251	—	—	—	—	—	—	—	—	XLVI.
75,073	119,539	2,65,832	2,85,288	—	—	—	—	—	—	—	—	—	—	—	—	XLVII.

(*d*) Includes Muttra-Achnera line.

STATEMENT showing the QUANTITIES of the principal Articles of MERCHANDISE, &c., carried, and the RECEIPTS

Classification Number.	Articles.	PROVINCIAL STATE											
		Northern Bengal.				Kaunia-Dhurla.				Tirhoot.			
		Quantity.		Receipts.		Quantity.		Receipts.		Quantity.		Receipts.	
		1881. Tons.	1882. Tons.	1881. Rs.	1882. Rs.	1881. Tons.	1882. Tons.	1881. Rs.	1882. Rs.	1881. Tons.	1882. Tons.	1881. Rs.	1882. Rs.
I.	Animals - No.	—	—	—	—	—	—	—	—	—	—	—	—
II.	Borax - -	—	—	—	—	—	—	—	—	—	—	—	—
III.	Canes and rattans -	—	—	—	—	—	—	—	—	—	—	—	—
IV.	Caoutchouc -	—	—	—	—	—	—	—	—	—	—	—	—
V.	Chinese and Japanese ware.	—	—	—	—	—	—	—	—	—	—	—	—
VI.	Coal and coke -	—	—	—	—	—	—	—	—	9,670	24,174	21,426	29,755
VII.	Cotton, raw - -	—	—	—	—	—	—	—	—	509	454	3,211	2,595
VIII.	Cotton, manufactured.	4,780	5,090	48,450	54,734	59	395	529	2,300	4,319	4,939	17,638	18,605
IX.	Drugs and medicines	—	—	—	—	—	—	—	—	41	88	267	480
X.	Dyeing materials -	—	—	—	—	—	—	—	—	2,042	1,766	10,038	8,103
XI.	Earthenware and porcelain.	—	—	—	—	—	—	—	—	—	—	—	—
XII.	Fibrous products -	39,491	66,809	3,10,824	4,69,359	190	1,630	735	1,566	675	1,059	2,230	2,719
XIII.	Fruits and nuts -	—	—	—	—	—	—	—	—	334	116	1,249	463
XIV.	Grain and pulse -	35,777	29,729	1,25,488	1,14,916	5	81	38	362	12,619	15,676	24,747	25,859
XV.	Gums and resins -	—	—	—	—	—	—	—	—	—	—	—	—
XVI.	Hides and skins -	—	—	—	—	—	—	—	—	1,689	2,154	6,179	6,675
XVII.	Horns - -	—	—	—	—	—	—	—	—	—	—	—	—
XVIII.	Lac - - - -	—	—	—	—	—	—	—	—	223	223	600	488
XIX.	Leather - -	—	—	—	—	—	—	—	—	—	—	—	—
XX.	Liquors - - -	—	—	—	—	—	—	—	—	272	223	1,678	1,179
XXI.	Mats - - -	—	—	—	—	—	—	—	—	—	—	—	—
XXII.	Metals - - -	—	3,713	—	37,090	—	—	—	—	2,194	3,177	9,808	9,653
XXIII.	Oils - - -	—	—	—	—	—	—	—	—	262	382	1,625	1,797
XXIV.	Opium - - - -	—	—	—	—	—	—	—	—	—	—	—	—
XXV.	Paints and colours -	—	—	—	—	—	—	—	—	248	136	1,047	571
XXVI.	Provisions - -	—	—	—	—	—	—	—	—	306	805	1,411	3,309
XXVII.	Salt - - -	14,440	17,390	52,510	61,759	9	84	63	97	14,064	14,878	25,062	25,235
XXVIII.	Saltpetre - - -	—	—	—	—	—	—	—	—	3,164	5,505	7,421	10,344
XXIX.	Seeds - - -	—	—	—	—	41	52	240	304	12,835	21,831	23,682	35,172
XXX.	Silk - - - -	—	—	—	—	—	—	—	—	—	—	—	—
XXXI.	Spices - -	—	—	—	—	—	—	—	—	1,181	1,395	4,109	3,916
XXXII.	Stone and marble -	—	—	—	—	—	—	—	—	462	1,105	1,705	2,578
XXXIII.	Sugar - -	—	—	—	—	—	—	—	—	524	728	2,327	1,910
XXXIV.	Tea - - - -	4,668	5,779	1,13,349	1,34,002	—	4	—	22	—	—	—	—
XXXV.	Tobacco - -	8,618	12,393	75,734	1,04,596	1	80	7	204	8,117	7,421	16,113	14,724
XXXVI.	Wood - - -	—	—	—	—	—	—	—	—	4,094	3,109	6,319	5,442
XXXVII.	Wool - - -	—	—	—	—	—	—	—	—	—	—	—	—
XXXVIII.	All other articles of merchandise.	44,994	49,719	3,02,212	2,60,974	329	684	948	2,458	18,791	43,718	37,010	66,841
XXXIX.	Bark (tanning) -	—	—	—	—	—	—	—	—	—	—	—	—
XL.	Coffee - - -	—	—	—	—	—	—	—	—	—	—	—	—
XLI.	Government stores	—	—	—	—	—	—	—	—	4	58	25	371
XLII.	Manures - -	—	—	—	—	—	—	—	—	421	633	2,667	1,420
XLIII.	Vegetables - -	—	—	—	—	—	—	—	—	465	294	1,593	857
XLIV.	Chunam and lime -	—	—	—	—	—	—	—	—	5,019	9,604	8,004	9,069
XLV.	Hay and straw and grass, &c.	—	—	—	—	—	—	—	—	—	—	—	—
XLVI.	Railway materials -	—	—	—	—	—	—	—	—	—	—	—	—
XLVII.	Revenue stores -	—	—	—	—	—	—	—	—	—	—	—	—

therefrom, on the several RAILWAYS for 1882, as compared with the similar results for 1881—*cont.*

RAILWAYS—*continued.*

Patna-Gya.				Muttra-Hathras.				Cawnpore-Farukabad.				Nagpur-Chhattisgarh.				Classification Number.
Quantity.		Receipts.		Quantity.		Receipts.		Quantity.		Receipts.		Quantity.		Receipts.		
1881.	1882.	1881.	1882.	1881.	1882.	1881.	1882.	1881.	1882.	1881.	1882.	1881.	1882.	1881.	1882.	
Tons.	Tons.	Rs.	Rs.	Tons.	Tons.	Rs.	Rs.	Tons.	Tons.	Rs.	Rs.	Tons.	Tons.	Rs.	Rs.	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	I.
—	—	—	—	18	41	18	44	2	10	13	51	1	1	2	2	II.
—	—	—	—	—	—	—	—	—	—	—	—	10	5	22	20	III.
—	—	—	—	—	—	—	—	—	2	—	10	—	—	—	—	IV.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	V.
3,515	4,255	8,336	10,298	—	467	—	335	2,109	996	8,209	4,044	7,643	2,529	12,294	5,254	VI.
575	579	3,235	3,336	409	246	396	266	1,362	1,760	8,179	10,073	166	208	1,209	2,056	VII.
1,180	1,300	5,055	5,223	723	656	1,769	1,192	1,600	1,682	9,020	10,535	691	1,070	2,671	6,257	VIII.
16	17	74	93	72	68	81	72	20	22	143	213	232	100	456	355	IX.
337	334	1,361	1,290	1,086	1,116	971	1,218	750	569	3,762	3,796	81	486	205	2,043	X.
—	—	—	—	96	169	192	142	195	23	1,294	112	5	3	17	15	XI.
392	459	1,138	1,246	536	397	606	388	221	291	946	1,324	593	1,228	1,870	5,619	XII.
74	142	326	626	244	105	328	116	134	180	733	1,206	851	729	2,365	2,396	XIII.
10,166	10,489	18,879	17,839	13,454	10,678	19,001	9,663	7,662	15,193	25,373	51,725	38,125	76,559	73,904	2,67,579	XIV.
—	—	—	—	441	453	368	369	147	57	546	277	49	59	136	230	XV.
536	604	1,636	1,925	148	163	331	233	151	171	827	1,004	697	656	1,933	2,630	XVI.
—	—	—	—	8	—	19	—	4	8	21	46	37	107	101	405	XVII.
1,204	1,767	3,861	5,840	18	19	22	32	39	57	162	225	35	87	171	433	XVIII.
—	—	—	—	8	50	20	124	10	37	49	200	130	121	261	364	XIX.
30	36	163	196	73	175	253	373	37	41	246	319	75	75	227	302	XX.
—	—	—	—	—	—	—	—	1	—	4	—	2	16	14	72	XXI.
1,171	1,113	3,944	4,063	489	728	715	989	1,136	2,341	5,628	11,752	568	761	1,315	2,580	XXII.
72	94	282	403	89	117	199	149	29	59	211	376	32	81	86	264	XXIII.
601	529	4,245	3,787	8	4	17	3	173	210	1,512	1,898	—	1	—	10	XXIV.
79	52	311	194	92	43	104	42	18	104	93	427	30	212	58	337	XXV.
158	72	630	299	282	761	504	15,19	559	677	2,141	2,944	492	230	743	755	XXVI.
6,322	6,587	16,074	16,251	349	205	220	225	502	734	1,541	2,138	4,385	8,761	9,115	25,980	XXVII.
177	293	313	494	78	108	114	133	2,405	4,823	9,601	15,635	—	2	—	4	XXVIII.
9,177	6,785	23,519	17,352	1,315	1,916	1,215	1,168	3,096	5,132	9,744	15,615	6,833	20,317	13,516	31,750	XXIX.
—	—	—	—	—	—	—	—	1	1	11	5	22	42	156	311	XXX.
830	652	2,845	2,140	785	667	719	729	214	182	796	980	27	86	81	278	XXXI.
582	5,218	1,384	9,406	200	236	128	343	118	636	458	15	4	19	15	103	XXXII.
8,759	14,384	20,869	33,974	5,698	7,180	7,666	7,363	348	469	1,176	1,502	366	359	792	1,109	XXXIII.
—	—	—	—	3	—	15	—	—	—	—	—	—	6	—	13	XXXIV.
1,551	1,554	6,063	5,971	75	104	67	138	127	126	675	674	112	150	355	535	XXXV.
455	693	1,066	1,688	1,018	1,186	1,975	1,511	893	1,233	3,815	4,944	1,149	1,244	4,627	6,525	XXXVI.
—	—	—	—	51	58	122	150	12	14	91	89	10	21	35	71	XXXVII.
18,994	15,666	32,195	29,927	1,367	1,496	3,033	2,207	1,407	2,309	7,654	7,210	2,071	1,011	8,385	5,637	XXXVIII.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	XXXIX.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	XL.
—	105	—	466	31	91	96	222	932	1,028	9,284	10,652	321	538	303	418	XLI.
93	84	252	237	—	—	—	—	—	—	—	—	—	—	—	—	XLII.
458	309	1,199	951	—	31	—	44	—	280	—	1,039	—	—	—	—	XLIII.
184	84	183	117	—	48	—	60	—	16	—	63	—	—	—	—	XLIV.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	XLV.
—	—	—	—	4	16	4	18	6,581	808	5,501	470	107,509	57,690	48,497	30,295	XLVI.
—	—	—	—	342	200	371	220	2,862	5,774	2,075	2,867	—	—	—	—	XLVII.

STATEMENT showing the QUANTITIES of the principal Articles of MERCHANDISE, &c., carried, and the RECEIPTS

Classification Number.	Articles.	PROVINCIAL STATE RAILWAYS —*cont.*				NATIVE							
		Rangoon and Irrawaddy Valley.				Bhopal.				Bhavnagar-Gondal.			
		Quantity.		Receipts.		Quantity.		Receipts.		Quantity.		Receipts.	
		1881. Tons.	1882. Tons.	1881. Rs.	1882. Rs.	1881. Tons.	1882. Tons.	1881. Rs.	1882. Rs.	1881. Tons.	1882. Tons.	1881. Rs.	1882. Rs.
I.	Animals	5,841	6,978	15,116	17,261	—	—	—	—	—	—	—	—
II.	Borax	—	—	—	—	—	—	—	—	—	—	—	—
III.	Canes and rattans	23	20	171	158	—	—	—	—	—	—	—	—
IV.	Caoutchouc	—	—	—	—	—	—	—	—	—	—	—	—
V.	Chinese and Japanese ware.	151	142	1,115	1,699	—	—	—	—	13	2	221	24
VI.	Coal and coke	445	5,813	700	2,473	—	99	—	97	3,773	5,763	4,834	4,347
VII.	Cotton, raw	15	10	224	144	—	—	—	—	13,051	17,905	1,22,174	1,66,060
VIII.	Cotton, manufactured.	849	838	8,792	8,849	—	171	—	360	510	770	6,253	8,830
IX.	Drugs and medicines	61	59	891	853	—	—	—	—	8	37	105	511
X.	Dyeing materials	6,184	3,798	33,951	21,274	—	—	—	—	115	235	1,068	2,066
XI.	Earthenware and porcelain.	564	348	2,277	2,217	—	—	—	—	6	2	32	14
XII.	Fibrous products	1,307	1,488	11,005	10,988	—	6	—	13	597	897	4,620	5,354
XIII.	Fruits and nuts	3,023	4,045	29,353	38,363	—	218	—	436	746	1,119	4,622	6,737
XIV.	Grain and pulse	84,936	97,775	4,10,538	4,16,741	—	1,084	—	1,121	5,896	12,935	26,266	48,119
XV.	Gums and resins	28	19	264	171	—	—	—	—	19	25	205	239
XVI.	Hides and skins	109	194	1,227	2,228	—	58	—	98	129	243	1,037	2,008
XVII.	Horns	9	14	107	184	—	—	—	—	3	10	27	84
XVIII.	Lac	8	17	84	184	—	—	—	—	7	8	68	80
XIX.	Leather	26	30	360	385	—	—	—	—	—	—	—	—
XX.	Liquors	564	365	7,058	4,684	—	9	—	26	17	23	234	256
XXI.	Mats	73	71	654	634	—	—	—	—	—	—	—	—
XXII.	Metals	1,159	3,104	8,503	10,252	—	190	—	333	598	7,051	5,273	8,882
XXIII.	Oils	1,210	1,246	12,423	13,491	—	39	—	79	278	413	2,611	3,870
XXIV.	Opium	4	4	69	60	—	109	—	340	4	7	50	108
XXV.	Paints and colours	17	64	152	173	—	—	—	—	34	30	362	343
XXVI.	Provisions	2,207	2,053	21,654	19,658	—	41	—	80	104	111	957	977
XXVII.	Salt	656	724	4,112	3,823	—	164	—	312	416	337	1,576	918
XXVIII.	Saltpetre	—	—	—	—	—	—	—	—	16	4	118	32
XXIX.	Seeds	1,439	121	13,094	921	—	8	—	21	2,614	4,711	13,380	22,192
XXX.	Silk	50	42	740	629	—	—	—	—	2	1	17	33
XXXI.	Spices	616	358	5,071	3,196	—	3	—	23	25	72	223	627
XXXII.	Stone and marble	30,510	28,940	43,874	46,530	—	30	—	62	76	366	392	1,442
XXXIII.	Sugar	966	1,196	7,049	7,540	—	323	—	656	654	1,282	3,889	6,822
XXXIV.	Tea	36	48	312	438	—	—	—	—	1	2	5	25
XXXV.	Tobacco	553	674	5,680	6,463	—	99	—	215	205	304	1,420	2,059
XXXVI.	Wood	5,605	17,196	15,000	35,991	—	131	—	209	3,263	5,978	24,236	32,878
XXXVII.	Wool	32	30	449	368	—	—	—	—	64	118	734	1,106
XXXVIII.	All other articles of merchandise.	4,657	8,978	22,796	24,614	—	19	—	36	725	1,049	8,011	11,000
XXXIX.	Bark (tanning)	—	—	—	—	—	—	—	—	—	—	—	—
XL.	Coffee	—	—	—	—	—	—	—	—	—	—	—	—
XLI.	Government stores	6	1	77	4	—	11	—	21	—	—	—	—
XLII.	Manures	—	—	—	—	—	—	—	—	—	—	—	—
XLIII.	Vegetables	203	134	1,840	1,245	—	—	—	—	—	—	—	—
XLIV.	Chunam and lime	208	530	942	1,184	—	—	—	—	—	—	—	—
XLV.	Hay and straw and grass, &c.	—	—	—	—	—	—	—	—	—	—	—	—
XLVI.	Railway materials	26,249	27,158	19,178	24,468	—	2,464	—	1,969	—	—	—	—
XLVII.	Revenue stores	—	—	—	—	—	—	—	—	—	—	—	—
XLVIII.	Miscellaneous	—	—	—	—	—	924	—	498	—	—	—	—

N.B.—Information for the Sindia, Dildarnagar-Ghazipur, Jodhpur, Assam and Darjeeling-Himaylayan Railways has not been received.

therefrom on the several Railways for 1882, as compared with the similar results for 1881.

STATES.	Gaekwar of Baroda's.				Nizam's.				Mysore.				Classification Number.
	Quantity.		Receipts.		Quantity.		Receipts.		Quantity.		Receipts.		
	1881. Tons.	1882. Tons.	1881. Rs.	1882. Rs.	1881. Tons.	1882. Tons.	1881. Rs.	1882. Rs.	1881. Tons.	1882. Tons.	1881. Rs.	1882. Rs.	
	—	—	—	—	—	—	3,364	2,201	19	137	44	459	I.
	—	—	—	—	—	—	—	—	—	1	—	3	II.
	—	—	—	—	—	—	—	—	—	—	—	—	III.
	—	—	—	—	—	—	—	—	—	—	—	—	IV.
	—	—	—	—	—	—	—	—	—	—	—	—	V.
	86	38	98	67	140	194	487	831	—	38	—	141	VI.
	—	—	—	—	185	563	1,136	4,038	—	60	—	381	VII.
	1,960	1,809	2,995	2,879	2,340	2,365	34,629	35,774	123	574	517	3,632	VIII.
	—	—	—	—	370	339	4,017	3,843	15	17	36	124	IX.
	—	—	—	—	225	284	1,293	1,487	11	19	29	88	X.
	—	—	—	—	186	328	3,007	5,058	—	1	—	2	XI.
	169	181	319	371	656	957	4,438	8,602	18	12	63	80	XII.
	506	429	868	1,097	1,954	1,992	18,545	18,392	9	214	27	962	XIII.
	4,730	5,637	6,935	9,131	22,523	25,208	1,16,412	1,27,164	176	4,466	570	19,420	XIV.
	—	—	—	—	90	69	810	587	—	1	1	7	XV.
	21	37	53	109	920	649	7,681	4,690	42	283	101	1,136	XVI.
	—	—	—	—	—	—	—	—	—	8	—	19	XVII.
	—	—	—	—	—	15	—	157	—	—	—	—	XVIII.
	—	—	—	—	—	703	—	7,029	—	28	—	93	XIX.
	15	19	36	49	473	413	5,781	5,777	8	91	39	565	XX.
	—	—	—	—	—	—	—	—	—	21	—	99	XXI.
	206	290	400	832	1,709	1,685	13,568	13,615	36	364	132	1,771	XXII.
	23	18	60	60	—	747	—	7,269	—	82	2	417	XXIII.
	—	—	—	—	—	33	—	686	—	—	—	—	XXIV.
	—	—	—	—	—	80	—	778	—	2	—	16	XXV
	463	339	743	616	1,161	719	12,017	7,152	12	10	46	53	XXVI.
	1,808	1,920	2,463	2,947	15,631	17,252	63,287	62,560	75	1,189	106	4,306	XXVII.
	—	—	—	—	—	—	—	—	—	3	—	18	XXVIII.
	2,008	1,341	2,940	2,254	10,362	11,888	46,763	45,152	20	963	55	3,673	XXIX.
	—	—	—	—	—	36	—	378	3	2	11	19	XXX.
	—	—	—	—	1,036	1,582	5,923	9,336	19	152	90	795	XXXI.
	3,164	2,614	5,770	4,788	1,138	2,332	5,785	11,446	—	210	—	496	XXXII.
	218	211	374	393	1,302	1,187	9,432	8,588	6	172	26	801	XXXIII.
	—	—	—	—	—	33	—	472	—	—	—	—	XXXIV.
	11	19	29	51	304	330	3,043	3,044	11	106	40	418	XXXV.
	3,218	2,736	6,413	6,507	6,464	8,435	21,211	24,300	256	3,139	225	2,773	XXXVI.
	3	7	8	16	105	192	1,129	1,114	15	16	75	44	XXXVII.
	13,643	9,997	21,051	19,812	2,649	2,163	27,319	26,036	475	805	2,170	4,331	XXXVIII
	—	—	—	—	—	—	—	—	—	—	—	—	XXXIX.
	—	—	—	—	—	—	—	—	43	1,136	217	6,070	XL.
	—	—	—	—	1,541	1,685	17,602	20,409	8	7	44	66	XLI.
	—	—	—	—	—	—	—	—	—	51	—	276	XLII.
	778	197	169	258	—	645	—	4,736	—	—	—	—	XLIII.
	200	189	325	271	—	—	—	—	—	—	—	—	XLIV.
	36	203	66	453	—	1,017	—	3,456	—	—	—	—	XLV.
	26	22	31	29	10,530	8,103	12,872	8,344	10,923	6,387	27,749	33,994	XLVI
	—	—	—	—	—	—	—	—	335	3,152	489	2,541	XLVII.
	—	—	—	—	—	—	—	—	130	264	326	1,600	XLVIII.

APPENDIX.

ACT No. IV. OF 1883.

PASSED BY THE GOVERNOR GENERAL OF INDIA IN COUNCIL.

(*Received the assent of the Governor General on the 16th February* 1883.)

An Act to amend the Indian Railway Act, 1879.

Preamble.

Whereas it is expedient to amend the Indian Railway Act, 1879, in manner herein-after appearing; It is hereby enacted as follows:—

Short title.

1. This Act may be called the Indian Railway Act, 1883;

Commencement.

and it shall come into force at once.

New sections substituted for section 5 of Act IV. of 1879.

2. For section five of the said Act the following sections shall be substituted, namely:—

"5. A Railway, or portion or extension of, or addition to, a Railway, shall not be opened for the public conveyance of passengers until the Railway Administration has given to the Governor General in Council notice in writing of the intention of opening the same, and until the Governor General in Council has by order sanctioned the opening of the same.

Railway when to be opened.

"5 A. The Governor General in Council may from time to time appoint, by name or by virtue of their office, officers to be Inspecting-officers under this Act.

Governor General in Council may appoint Inspecting-officers.

"5 B. (1.) The sanction referred to in section five shall not be given until an officer appointed under section 5 A has, after inspection of the Railway, portion, extension or addition, as the case may be, reported to the Governor General in Council that in his opinion the opening of the same would not be attended with danger to the public using it.

Sanction not to be given until after report by Inspecting-officer.

"(2.) Notwithstanding anything herein-before contained, the Governor General in Council may, in any particular case or in any particular class of cases, by special order, confer on any officer appointed under section 5 A power to sanction the opening of a Railway, portion, extension or addition, if in the officer's opinion the opening of the same will not be attended with danger to the public using it.

"(3.) In such cases it shall not be necessary to make the report required by sub-section (1); but the Governor General in Council may by order cancel the sanction given under sub-section (2), or direct that the sanction shall be subject to such conditions as he thinks fit.

"(4.) The sanction given under this section may be either absolute or subject to such conditions as the Governor General in Council, or the officer appointed under section 5 A, as the case may be, thinks necessary for the safety of the public.

"(5.) When sanction for the opening of any railway, or portion or extension of, or addition to, any railway, is given subject to conditions, and the Railway Administration fails or neglects to fulfil, or comply with, those conditions, the sanction shall on the failure or neglect forthwith be deemed to be void, and the railway, or portion, or extension, or addition, as the case may be, shall not be used unless and until sanction is again obtained under this section for the opening thereof.

"5 C. If, after a railway has been opened as herein-before provided, any portion of it is so altered by the Railway Administration as to cause danger to, or affect the safety of, passengers carried thereon, the portion so altered shall not be used for the public conveyance of passengers, unless and until sanction is obtained, in accordance with the provisions of section 5 B, for the opening of it.

When alterations affecting safety of passengers are made in Railway, sanction to be again obtained for opening.

"5 D. (1.) Every officer appointed under section 5 A shall for the purpose of the inspection, be deemed to be a public servant within the meaning of the Indian Penal Code, and shall, subject to the control of the Governor General in Council, have the following powers, namely:—

Powers of Inspector of Railways.

"(*a.*) he may enter on and inspect any railway or portion thereof which has been opened for the public conveyance of passengers, or any rolling-stock used thereon;

"(*b.*) he may, by an order in writing under his hand, require the attendance of any railway servant whom he thinks fit to call before him and examine for the said purpose, and may require any such servant to answer, or furnish returns regarding, such inquiries for the said purpose as he thinks fit to make;

"(*c.*) he may require and enforce the production of all books, papers and documents belonging to or in the possession of any Railway Administration which in his opinion are necessary for the said purpose.

"(2.) Every Railway Administration whose railway or rolling-stock is being inspected under this Act shall afford all reasonable facilities for making the inspection to the officer making it.

"5 E. When, after inspecting any railway or portion of a railway, or any rolling-stock used thereon, any officer appointed under section 5 A reports to the Governor General in Council that in his opinion the use of the railway or portion or of any specified rolling-stock will be attended with danger to the public using it, the Governor General in Council may, by order, direct that the railway or portion be closed for the public conveyance of passengers, or that the rolling-stock so specified shall no longer be used, as the case may be,

Governor General in Council empowered to close Railway.

"5 F. (1). When a railway or portion of a railway has been closed under section 5 E, it shall not be re-opened for the public conveyance of passengers unless and until it has been inspected, and its opening sanctioned, in accordance with the provisions of section 5 B.

Re-opening of Railway.

"(2.) When the Governor General in Council has directed under section 5 E that any rolling-stock shall not be used, the rolling-stock shall not be used unless and until an officer appointed under section 5 A reports that it is fit for use, and the Governor General in Council sanctions its use."

3. In section eight of the said Act, in clause (*d*), the word "and" shall be omitted, and after clause (*d*) the following clause shall be, and be deemed to have always been, inserted:—

Amendment of, and addition to, section 8.

"(*dd*) for regulating the conduct of the railway-servants, and."

New section to be substituted for section 21 of Act IV of 1879.

4. For section twenty-one of the said Act the following section shall be substituted:—

"21. Any Railway Administration opening or using, in contravention of section five, section 5 B, or section 5 C, any railway, or any portion or extension of, or addition to a railway, or keeping, in contravention of an order of the Governor General in Council under section 5 E, any railway or portion thereof open, or re-opening, in contravention of section 5 F, sub-section (1), any railway or portion thereof or using, in contravention of section 5 F, sub-section (2), any rolling-stock, shall forfeit to the Government the sum of one thousand rupees for every day during which the railway, portion, extension or addition remains open or is used in contravention of any of those sections or of the order of the Governor General in Council, as the case may be, or during which the rolling-stock is so used."

Penalty for opening or re-opening Railway in contravention of sections 5 and 5F, and keeping open after order under section 5E.

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